

Supplementary Materials for

Climate change threatens New Guinea's biocultural heritage

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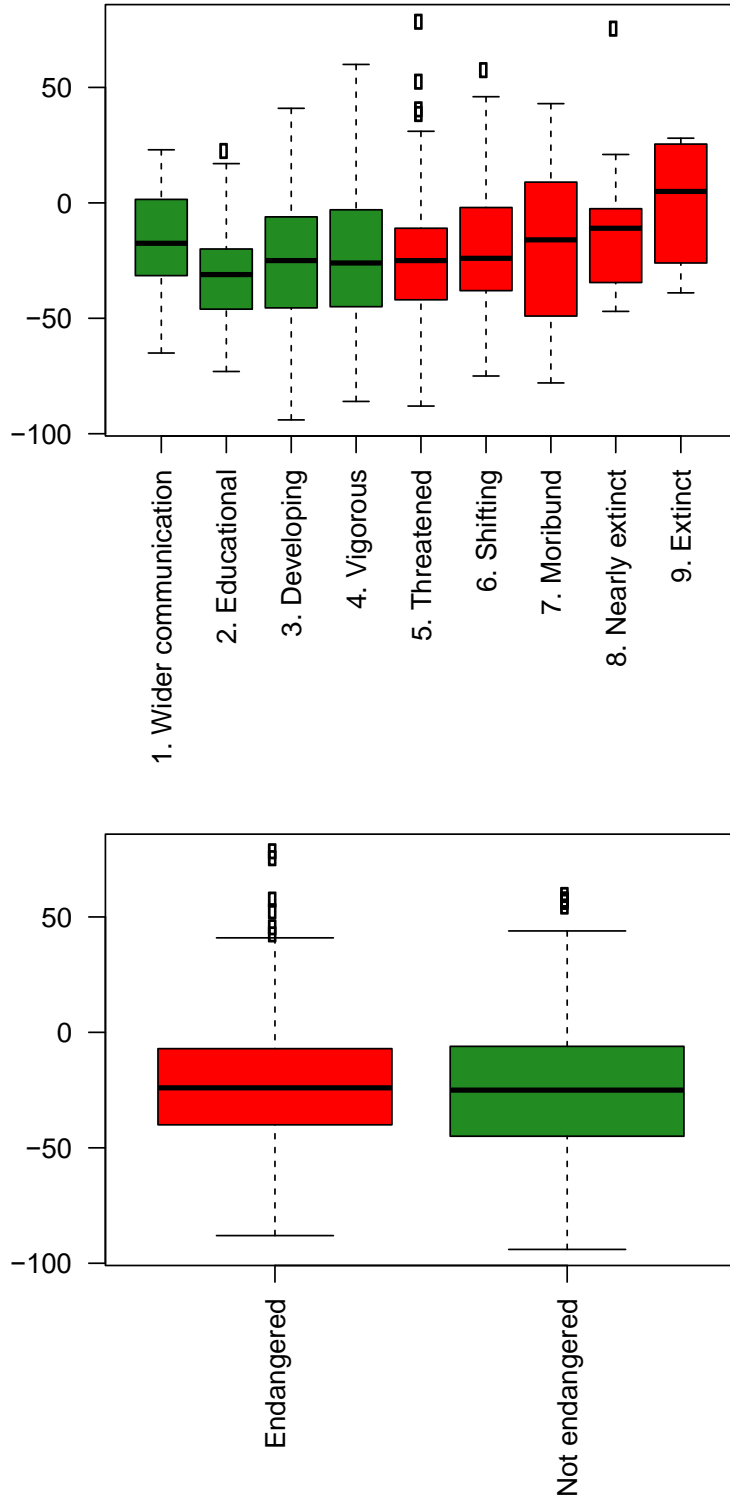


Fig. S2. Predicted difference in useful endemic species richness between current climate and 2070 RCP 8.5 for endangered (red) and nonendangered languages (green).

Table S1. Predicted means (and ranges) of endemic plant species richness in 20 WWF ecoregions of New Guinea under current and future climate.

Ecoregion	Current	2070 RCP 2.6	2070 RCP 8.5
Admiralty Islands lowland rain forests	911 (564–1242)	822 (514–1127)	764 (454–1059)
Biak-Numfoor rain forests	1200 (974–1730)	1132 (913–1068)	1107 (898–1603)
Central Range montane rain forests	2303 (2301–2305)	2304 (2304)	2294 (2393–2395)
Central Range sub-alpine grasslands	1064 (717–1557)	1023 (666–1556)	991 (612–1562)
Halmahera rain forests	911 (795–1027)	872 (755–989)	836 (720–953)
Huon Peninsula montane rain forests	2226	2165	2146
Louisiade Archipelago rain forests	828 (353–1154)	817 (374–1110)	814 (370–1104)
New Britain-New Ireland lowland rain forests	940 (228–1803)	899 (249–1762)	865 (269–1702)
New Britain-New Ireland montane rain forests	1506 (1080–1803)	1454 (1039–1762)	1395 (1025–1702)
New Guinea mangroves	760 (260–1778)	750 (313–1708)	755 (367–1695)
Northern New Guinea lowland rain and freshwater swamp forests	1237 (236–2164)	1176 (203–2106)	1156 (279–2056)
Northern New Guinea montane rain forests	1716 (1447–2069)	1649 (1385–2009)	1578 (1317–1933)
Southeastern Papuan rain forests	1158 (642–2297)	1134 (623–2260)	1131 (633–2237)
Southern New Guinea freshwater swamp forests	1467 (573–1957)	1413 (579–1871)	1388 (597–1856)
Southern New Guinea lowland rain forests	1952 (1747–2059)	1862 (1666–1980)	1812 (1612–1921)
Trans Fly savanna and grasslands	1508 (1508–1509)	1478 (1471–1485)	1436 (1425–1446)
Trobriand Islands rain forests	961 (342–1524)	927 (359–1456)	912 (365–1444)
Vogelkop montane rain forests	1436 (1031–2127)	1389 (988–2065)	1360 (978–2021)
Vogelkop-Aru lowland rain forests	778 (241–2184)	766 (266–2112)	761 (284–2057)
Yapen rain forests	1081 (553–1624)	1037 (559–1546)	1006 (545–1466)

Table S2. Predicted means (and ranges) of endemic useful plant richness in 1030 language areas under current and future climate in New Guinea.

Use category	Current	RCP 2.6	RCP 8.5
All useful species richness (A_{sp})	405 (0–683)	389 (0–681)	382 (0–679)
Proportion of languages with 2070 reductions in A_{sp}	-	83%	80%
Average change in A_{sp} per language	-	-16 (-70–28)	-25 (-94–79)
Construction species richness (CO_{sp})	223 (0–358)	216 (0–355)	214 (0–354)
Proportion of languages with 2070 reductions in CO_{sp}	-	76%	71%
Average change of CO_{sp} per language	-	-6 (-29–26)	-8 (-45–48)
Culture species richness (Cu_{sp})	149 (0–256)	141 (0–253)	138 (0–253)
Proportion of languages with 2070 reductions in Cu_{sp}	-	84%	81%
Average change of Cu_{sp} per language	-	-7 (-34–11)	-10 (-43–34)
Food species richness (F_{sp})	95 (0–157)	91 (0–156)	89 (0–153)
Proportion of languages with 2070 reductions in F_{sp}	-	75%	78%
Average change of F_{sp} per language	-	-3 (-19–11)	-5 (-25–25)
Medicine species richness (M_{sp})	107 (0–181)	101 (0–181)	99 (0–178)
Proportion of languages with 2070 reductions in M_{sp}	-	79%	80%
Average change of M_{sp} per language	-	-5 (-21–9)	-7 (-31–27)

Table S3. Potential change in endemic useful plant richness across New Guinea's languages from current to future climate.

No	Language	Sp. current	Sp. rcp26	Sp. rcp85	RCP 2.6 - current	RCP 8.5 - current
1	Burmeso	650	630	607	-20	-43
2	Malay, Ambonese	241	245	251	4	10
3	Lola	250	257	262	7	12
4	Manombai	289	291	301	2	12
5	Tarangan, East	386	386	379	0	-7
6	Tarangan, West	490	477	470	-13	-20
7	Karey	256	253	262	-3	6
8	Barakai	271	272	285	1	14
9	Dobel	283	289	291	6	8
10	Lorang	303	302	307	-1	4
11	Koba	198	202	212	4	14
12	Batuley	224	227	231	3	7
13	Kola	331	326	334	-5	3
14	Ujir	397	383	385	-14	-12
15	Kompane	314	307	311	-7	-3
16	Ndom	279	276	284	-3	5
17	Kimaama	502	480	464	-22	-38
18	Koneraw	186	193	205	7	19
19	Mariri	148	165	175	17	27
20	Asmat, Central	591	573	561	-18	-30
21	Nisa	436	412	410	-24	-26
22	Orya	624	602	570	-22	-54
23	Matbat	571	548	544	-23	-27
24	Fayu	539	512	491	-27	-48
25	Ekari	682	674	664	-8	-18
26	Semimi	508	487	463	-21	-45
27	Baham	483	467	440	-16	-43
28	Kamoro	638	628	607	-10	-31
29	Kowiai	470	455	451	-15	-19
30	Mairasi	551	527	507	-24	-44
31	Kamberau	569	543	541	-26	-28
32	Buruwai	409	401	398	-8	-11
33	Karas	426	411	410	-15	-16
34	Irarutu	541	522	515	-19	-26
35	Iresim	433	414	393	-19	-40
36	Mer	592	565	553	-27	-39
37	Yaur	360	346	348	-14	-12
38	Moni	584	599	595	15	11
39	Nduga	624	627	603	3	-21
40	Sempan	541	510	491	-31	-50
41	Damal	657	650	636	-7	-21
42	Asmat, North	449	421	409	-28	-40
43	Dani, Western	668	666	662	-2	-6
44	Wolani	566	569	564	3	-2
45	Tunggare	596	572	539	-24	-57
46	Auye	435	430	410	-5	-25
47	Kehu	483	458	431	-25	-52
48	Dao	457	463	444	6	-13
49	Wano	645	637	623	-8	-22
50	Dem	280	255	239	-25	-41
51	Iau	543	508	484	-35	-59
52	Duvle	522	491	460	-31	-62
53	Yeretuar	387	365	354	-22	-33
54	Kemberano	381	375	377	-6	-4
55	Erokwanas	298	297	295	-1	-3
56	Onin	455	427	407	-28	-48
57	Iha	486	454	426	-32	-60
58	Sekar	381	368	367	-13	-14
59	Bedoanas	376	363	358	-13	-18
60	Wandamen	662	638	616	-24	-46
61	Kuri	548	523	494	-25	-54
62	Mor	304	298	300	-6	-4
63	Tanahmerah	336	324	320	-12	-16
64	Arandai	362	350	349	-12	-13
65	Puragi	354	344	343	-10	-11
66	Kokoda	385	369	368	-16	-17
67	Suabo	213	214	207	1	-6
68	Roon	366	362	356	-4	-10
69	Meoswar	309	313	308	4	-1
70	Awera	479	451	441	-28	-38
71	Demisa	624	603	579	-21	-45
72	Tause	550	522	503	-28	-47

73	Mor	195	201	204	6	9
74	Waropen	463	439	434	-24	-29
75	Burate	350	347	341	-3	-9
76	Kwerisa	578	552	542	-26	-36
77	Kirikiri	613	589	565	-24	-48
78	Bauzi	640	625	587	-15	-53
79	Biritai	432	390	386	-42	-46
80	Eritai	490	456	429	-34	-61
81	Barapasi	561	522	487	-39	-74
82	Sauri	422	410	398	-12	-24
83	Saponi	115	135	143	20	28
84	Rasawa	322	312	311	-10	-11
85	Tefaro	593	566	551	-27	-42
86	Serui-Laut	485	465	441	-20	-44
87	Trimuris	481	444	428	-37	-53
88	Kauwera	481	457	421	-24	-60
89	Bagusa	387	372	373	-15	-14
90	Moi	624	602	590	-22	-34
91	Hatam	517	509	496	-8	-21
92	Biak	607	594	565	-13	-42
93	Mai Brat	635	611	591	-24	-44
94	Yahadian	199	194	195	-5	-4
95	Konda	460	443	442	-17	-18
96	Kaburi	373	362	357	-11	-16
97	Kais	374	360	358	-14	-16
98	Moskona	574	539	500	-35	-74
99	Kalabra	469	449	442	-20	-27
100	Seget	568	556	546	-12	-22
101	Palamul	277	274	270	-3	-7
102	Maya	503	487	476	-16	-27
103	Duriankere	272	271	263	-1	-9
104	Meyah	649	619	591	-30	-58
105	Manikion	670	664	647	-6	-23
106	Thetit	490	460	447	-30	-43
107	Anasi	303	298	293	-5	-10
108	Ambai	343	342	334	-1	-9
109	Saweru	428	409	396	-19	-32
110	Busami	394	379	373	-15	-21
111	Yawa	529	493	467	-36	-62
112	Kurudu	371	366	362	-5	-9
113	Warembori	565	544	545	-21	-20
114	Wabo	410	391	377	-19	-33
115	Papuma	436	421	398	-15	-38
116	Marau	383	368	363	-15	-20
117	Ansus	362	359	347	-3	-15
118	Pom	542	528	501	-14	-41
119	Woi	323	327	322	4	-1
120	Munggui	403	392	377	-11	-26
121	Yoke	292	283	285	-9	-7
122	Maden	481	482	472	1	-9
123	Kawe	382	370	364	-12	-18
124	Gebe	411	395	387	-16	-24
125	Waigeo	372	358	347	-14	-25
126	Legenyem	616	606	602	-10	-14
127	Abun	614	573	548	-41	-66
128	Moraid	426	401	395	-25	-31
129	As	393	386	379	-7	-14
130	Mpur	655	635	620	-20	-35
131	Karon Dori	521	490	454	-31	-67
132	Morori	299	302	300	3	1
133	Kanum, Smarky	330	318	320	-12	-10
134	Marind	535	519	500	-16	-35
135	Kanum, Ngkalm pw	375	372	364	-3	-11
136	Kanum, Badi	228	229	237	1	9
137	Mombum	198	202	211	4	13
138	Kanum, Sota	288	295	307	7	19
139	Yei	509	495	473	-14	-36
140	Yei	490	467	451	-23	-39
141	Aghu	340	339	337	-1	-3
142	Tamagarario	438	424	411	-14	-27
143	Yelmek	511	487	469	-24	-42
144	Riantana	395	375	370	-20	-25
145	Maklew	503	476	456	-27	-47
146	Yaqay	451	426	417	-25	-34
147	Siagha-Yenimu	517	489	481	-28	-36
148	Awyu, Nohon	467	447	436	-20	-31

149	Awyu, Miaro	406	393	388	-13	-18
150	Atohwaim	426	409	394	-17	-32
151	Asmat, Casuarina Coast	551	528	516	-23	-35
152	Kayagar	365	355	349	-10	-16
153	Warkay-Bipim	331	317	317	-14	-14
154	Sawi	488	469	455	-19	-33
155	Jair	388	383	368	-5	-20
156	Citak	493	463	450	-30	-43
157	Citak, Tannim	398	389	382	-9	-16
158	Kombai	462	443	432	-19	-30
159	Marind, Bian	515	490	489	-25	-26
160	Mandobo	556	524	514	-32	-42
161	Boazi	459	435	430	-24	-29
162	Yongkom	430	408	404	-22	-26
163	Yongkom	537	517	502	-20	-35
164	Mandobo	345	337	336	-8	-9
165	Wambon	481	450	431	-31	-50
166	Nakai	227	226	242	-1	15
167	Kwer	346	330	328	-16	-18
168	Bayono	295	288	288	-7	-7
169	Asmat, Yaosakor	385	379	371	-6	-14
170	Momuna	522	498	484	-24	-38
171	Diuwe	418	405	395	-13	-23
172	Korowai	474	444	434	-30	-40
173	Tsakwambo	394	379	374	-15	-20
174	Awbono	434	418	408	-16	-26
175	Korowai, North	379	372	355	-7	-24
176	Tokuni	292	284	285	-8	-7
177	Yali, Ninia	507	512	516	5	9
178	Silimo	620	621	600	1	-20
179	Korupun-Sela	513	519	501	6	-12
180	Hupla	412	397	387	-15	-25
181	Ngalum	585	575	569	-10	-16
182	Kopkaka	372	361	350	-11	-22
183	Marub	181	189	200	8	19
184	Burumakok	306	297	301	-9	-5
185	Una	428	433	437	5	9
186	Momina	374	362	345	-12	-29
187	Ketengban	630	626	614	-4	-16
188	Eipomek	583	576	561	-7	-22
189	Ninggerum	442	431	418	-11	-24
190	Ninggerum	356	354	337	-2	-19
191	Faiwol	623	610	587	-13	-36
192	Iwur	516	493	465	-23	-51
193	Tifal	553	534	515	-19	-38
194	Ngalum	506	469	436	-37	-70
195	Suganga	587	550	501	-37	-86
196	Pyu	459	427	415	-32	-44
197	Abinomn	608	576	533	-32	-75
198	Lepki	644	619	581	-25	-63
199	Walak	469	473	487	4	18
200	Yali, Angguruk	658	658	640	0	-18
201	Dani, Mid Grand Valley	566	575	601	9	35
202	Dani, Lower Grand Valley	348	329	333	-19	-15
203	Dani, Upper Grand Valley	402	383	388	-19	-14
204	Yali, Pass Valley	655	653	647	-2	-8
205	Nipsan	427	412	426	-15	-1
206	Nalca	580	577	577	-3	-3
207	Yale, Kosarek	616	616	581	0	-35
208	Kosadle	493	456	426	-37	-67
209	Foau	621	595	581	-26	-40
210	Taworta	527	471	441	-56	-86
211	Nggem	529	518	507	-11	-22
212	Doutai	163	186	221	23	58
213	Waritai	377	354	352	-23	-25
214	Narau	559	515	476	-44	-83
215	Kapori	457	416	412	-41	-45
216	Kaure	576	543	513	-33	-63
217	Sause	602	575	535	-27	-67
218	Elseng	662	651	633	-11	-29
219	Usku	557	526	484	-31	-73
220	Murkim	384	358	360	-26	-24
221	Yetfa	505	458	440	-47	-65
222	Kimki	456	424	414	-32	-42
223	Tofanma	530	495	458	-35	-72
224	Kembra	358	355	355	-3	-3

225	Toweï	337	321	321	-16	-16
226	Emumu	550	504	462	-46	-88
227	Abau	546	514	496	-32	-50
228	Biksi	421	391	389	-30	-32
229	Karkar-Yuri	501	451	423	-50	-78
230	Kamberataro	472	425	405	-47	-67
231	Molof	336	331	328	-5	-8
232	Senggi	469	419	405	-50	-64
233	Dubu	283	298	305	15	22
234	Yafi	407	374	368	-33	-39
235	Sowanda	479	440	409	-39	-70
236	Waris	546	522	494	-24	-52
237	Amanab	479	438	418	-41	-61
238	Kamberataro	548	510	463	-38	-85
239	Sowanda	467	431	399	-36	-68
240	Waris	534	493	461	-41	-73
241	Anus	0	0	0	0	0
242	Mander	354	341	339	-13	-15
243	Papasena	576	549	504	-27	-72
244	Sikaritai	339	330	334	-9	-5
245	Obokuitai	455	419	411	-36	-44
246	Kaiy	384	347	351	-37	-33
247	Kwerba	678	663	640	-15	-38
248	Kwerba Mamberamo	628	615	582	-13	-46
249	Berik	483	451	436	-32	-47
250	Wares	262	247	268	-15	6
251	Mawes	355	336	332	-19	-23
252	Bonggo	324	309	310	-15	-14
253	Liki	426	401	381	-25	-45
254	Airoran	510	471	451	-39	-59
255	Kwesten	443	396	396	-47	-47
256	Massep	331	319	316	-12	-15
257	Samarokena	382	354	343	-28	-39
258	Isirawa	539	507	499	-32	-40
259	Betaf	326	308	311	-18	-15
260	Bonerif	369	347	351	-22	-18
261	Itik	352	337	342	-15	-10
262	Keder	409	381	377	-28	-32
263	Masimasi	460	426	423	-34	-37
264	Wakde	441	407	409	-34	-32
265	Dabe	389	367	365	-22	-24
266	Yamna	357	337	345	-20	-12
267	Gresi	575	538	503	-37	-72
268	Manem	517	470	445	-47	-72
269	Awyi	530	492	455	-38	-75
270	Taikat	450	417	405	-33	-45
271	Manem	502	465	435	-37	-67
272	Kemtuik	319	308	309	-11	-10
273	Mekwei	268	246	277	-22	9
274	Nimboran	386	365	361	-21	-25
275	Mlap	314	295	311	-19	-3
276	Tarpia	318	302	310	-16	-8
277	Marengi	302	289	291	-13	-11
278	Tabla	491	472	444	-19	-47
279	Demta	463	422	405	-41	-58
280	Tobati	386	358	358	-28	-28
281	Nafri	223	241	259	18	36
282	Sentani	506	453	426	-53	-80
283	Wutung	569	549	513	-20	-56
284	Skou	349	331	337	-18	-12
285	Ormu	96	103	137	7	41
286	Edopi	452	419	407	-33	-45
287	Biksi	378	358	360	-20	-18
288	Yele	401	389	392	-12	-9
289	Tauade	514	518	522	4	8
290	Nambu	357	353	344	-4	-13
291	Kala Lagaw Ya	244	243	239	-1	-5
292	Kunja	376	367	352	-9	-24
293	Kanum, Sota	312	309	315	-3	3
294	Mari	166	175	184	9	18
295	Tais	311	312	305	1	-6
296	Agob	362	358	349	-4	-13
297	Gizra	246	249	249	3	3
298	Kiwai, Southern	387	369	363	-18	-24
299	Bine	224	238	240	14	16
300	Gogodala	401	375	369	-26	-32

301	Blafe	484	477	458	-7	-26
302	Idi	411	396	382	-15	-29
303	Wara	282	292	300	10	18
304	Mutum	382	370	357	-12	-25
305	Rema	425	414	399	-11	-26
306	Lewada-Dewara	364	360	356	-4	-8
307	Arammba	478	450	437	-28	-41
308	Suki	500	476	452	-24	-48
309	Waruna	520	503	488	-17	-32
310	Mekeo	593	574	544	-19	-49
311	Gidra	429	415	403	-14	-26
312	Nara	483	476	464	-7	-19
313	Kabadi	462	441	422	-21	-40
314	Roro	315	319	322	4	7
315	Kuni	558	549	523	-9	-35
316	Wabuda	492	476	459	-16	-33
317	Aturu	203	212	220	9	17
318	Baramu	174	192	208	18	34
319	Tirio	304	304	310	0	6
320	Tabo	308	302	305	-6	-3
321	Bamu	388	351	347	-37	-41
322	Toaripi	606	581	548	-25	-58
323	Kunimaipa	477	476	489	-1	12
324	Turaka	270	275	284	5	14
325	Kakabai	482	467	465	-15	-17
326	Domu	518	513	505	-5	-13
327	Daga	512	508	501	-4	-11
328	Mailu	434	419	403	-15	-31
329	Morawa	273	276	283	3	10
330	Suau	496	487	477	-9	-19
331	Laua	464	454	451	-10	-13
332	Magori	331	325	334	-6	3
333	Kanasi	400	383	379	-17	-21
334	Aneme Wake	436	430	424	-6	-12
335	Maria	563	549	544	-14	-19
336	Keopara	344	344	337	0	-7
337	Sinaugoro	496	485	476	-11	-20
338	Hula	232	228	251	-4	19
339	Ghayavi	291	287	292	-4	1
340	Bauwaki	460	460	461	0	1
341	Binahari	366	360	357	-6	-9
342	Ginuman	405	388	387	-17	-18
343	Umanakaina	290	288	286	-2	-4
344	Wagawaga	485	473	459	-12	-26
345	Bwanabwana	356	348	345	-8	-11
346	Tawala	407	397	382	-10	-25
347	Buhutu	413	406	386	-7	-27
348	Sudest	348	352	350	4	2
349	Misima-Paneati	392	390	387	-2	-5
350	Nimoa	279	284	286	5	7
351	Gweda	271	271	284	0	13
352	Taupota	402	398	384	-4	-18
353	Dawawa	322	301	298	-21	-24
354	Wedau	407	391	382	-16	-25
355	Auhelawa	283	284	289	1	6
356	Bunama	311	299	300	-12	-11
357	Duau	321	311	304	-10	-17
358	Sewa Bay	317	318	321	1	4
359	Dobu	409	389	392	-20	-17
360	Mwatebu	361	345	332	-16	-29
361	Maisin	424	411	400	-13	-24
362	Koiali, Mountain	616	615	616	-1	0
363	Uare	456	437	426	-19	-30
364	Humene	305	304	309	-1	4
365	Motu	360	357	357	-3	-3
366	Koitabu	348	347	349	-1	1
367	Koiari, Grass	569	559	559	-10	-10
368	Bariai	552	547	532	-5	-20
369	Doromu	410	409	401	-1	-9
370	Moikodi	520	519	505	-1	-15
371	Yareba	519	513	506	-6	-13
372	Nawaru	261	253	252	-8	-9
373	Baruga	540	520	498	-20	-42
374	Orokaiva	581	571	543	-10	-38
375	Binandere	567	543	504	-24	-63
376	Fuyug	514	505	509	-9	-5

377	Doura	303	291	290	-12	-13
378	Guhu-Samane	585	575	554	-10	-31
379	Managalasi	465	460	463	-5	-2
380	Bariji	249	249	257	0	8
381	Ewage-Notu	580	572	545	-8	-35
382	Omie	269	254	230	-15	-39
383	Gaina	152	166	196	14	44
384	Bwaidoka	298	296	304	-2	6
385	Gapapaiwa	252	256	277	4	25
386	Jimajima	388	374	378	-14	-10
387	Maiwa	472	464	453	-8	-19
388	Mapena	160	168	190	8	30
389	Ubir	356	351	347	-5	-9
390	Arifama-Miniafia	212	219	227	7	15
391	Doga	366	358	361	-8	-5
392	Molima	431	408	403	-23	-28
393	Are	332	333	335	1	3
394	Iamalele	366	361	357	-5	-9
395	Minaveha	387	378	375	-9	-12
396	Galeya	378	368	360	-10	-18
397	Koluawawa	352	342	334	-10	-18
398	Onjab	253	258	274	5	21
399	Iduna	387	382	367	-5	-20
400	Diodio	161	158	166	-3	5
401	Korafe	268	269	274	1	6
402	Wataluma	375	366	363	-9	-12
403	Kilivila	323	303	305	-20	-18
404	Muyuw	458	447	446	-11	-12
405	Bosilewa	420	400	395	-20	-25
406	Gumawana	355	349	345	-6	-10
407	Budibud	217	223	221	6	4
408	Tanguat	210	211	228	1	18
409	Papi	448	413	405	-35	-43
410	Niksek	510	469	435	-41	-75
411	Konai	469	428	408	-41	-61
412	Odoodee	507	480	450	-27	-57
413	Zimakani	604	582	575	-22	-29
414	Pare	472	450	442	-22	-30
415	Aekyom	563	529	515	-34	-48
416	Samo	560	532	510	-28	-50
417	Fembe	437	415	404	-22	-33
418	Hewa	529	521	536	-8	7
419	Bimin	564	553	533	-11	-31
420	Duna	485	486	488	1	3
421	Bogaya	421	409	397	-12	-24
422	Setaman	371	370	348	-1	-23
423	Telefol	588	573	546	-15	-42
424	Oksapmin	571	574	565	3	-6
425	Urapmin	333	311	303	-22	-30
426	Mian	617	598	570	-19	-47
427	Owiniga	380	354	355	-26	-25
428	Tuwari	457	417	403	-40	-54
429	Suarmin	556	556	541	0	-15
430	Yawiyo	478	428	414	-50	-64
431	Saniyo-Hiyewe	462	424	405	-38	-57
432	Nii	607	613	604	6	-3
433	Kewa, West	515	516	517	1	2
434	Aimele	282	284	309	2	27
435	Kamula	518	490	479	-28	-39
436	Ari	377	359	360	-18	-17
437	Bainapi	309	312	319	3	10
438	Tao-Suamato	471	440	416	-31	-55
439	Ikobi-Mena	611	594	576	-17	-35
440	Kasua	394	369	361	-25	-33
441	Kaluli	396	362	363	-34	-33
442	Fasu	544	519	489	-25	-55
443	Huli	552	553	558	1	6
444	Beami	602	579	543	-23	-59
445	Sonia	294	291	309	-3	15
446	Edolo	284	249	265	-35	-19
447	Angal Enen	374	362	360	-12	-14
448	Foi	538	518	505	-20	-33
449	Enga	589	596	621	7	32
450	Angal Heneng	345	321	320	-24	-25
451	Angal	355	341	331	-14	-24
452	Folopa	557	532	519	-25	-38

453	Kerewo	408	399	388	-9	-20
454	Minanibai	334	322	314	-12	-20
455	Morigi	283	268	272	-15	-11
456	Omati	341	326	337	-15	-4
457	Rumu	437	413	406	-24	-31
458	Kiwai, Northeast	357	353	343	-4	-14
459	Purari	499	476	457	-23	-42
460	Kibiri	141	153	169	12	28
461	Ipiko	268	261	285	-7	17
462	Pawaia	649	627	610	-22	-39
463	Melpa	578	596	608	18	30
464	Kewa, East	475	479	481	4	6
465	Samberigi	434	407	395	-27	-39
466	Erave	400	367	360	-33	-40
467	Wiru	533	526	525	-7	-8
468	Mbo-Ung	272	247	240	-25	-32
469	Imbongu	262	236	222	-26	-40
470	Umbu-Ungu	421	414	428	-7	7
471	Golin	498	499	492	1	-6
472	Dadibi	552	541	548	-11	-4
473	Kuman	477	479	500	2	23
474	Wahgi	453	455	462	2	9
475	Dom	121	75	42	-46	-79
476	Bun	341	330	331	-11	-10
477	Bisorio	518	469	424	-49	-94
478	Ipili	409	398	393	-11	-16
479	Nete	368	357	353	-11	-15
480	Piame	465	431	408	-34	-57
481	Bikaru	403	359	347	-44	-56
482	Lembena	387	358	353	-29	-34
483	Arafundi	588	571	538	-17	-50
484	Alamblak	499	443	422	-56	-77
485	Kapriman	472	431	412	-41	-60
486	Bahinemo	628	608	568	-20	-60
487	Watakataui	319	323	316	4	-3
488	Bisis	437	405	383	-32	-54
489	Bitara	411	379	374	-32	-37
490	Mari	297	299	307	2	10
491	Sumariup	364	347	339	-17	-25
492	Yimas	387	359	349	-28	-38
493	Tabriak	413	374	376	-39	-37
494	Kaningra	427	395	382	-32	-45
495	Kyenele	237	239	265	2	28
496	Mekmek	529	494	449	-35	-80
497	Rao	535	514	484	-21	-51
498	Maring	424	419	418	-5	-6
499	Kalam	483	477	457	-6	-26
500	Kyaka	501	504	505	3	4
501	Pinai-Hagahai	424	400	398	-24	-26
502	Kobon	455	460	478	5	23
503	Haruai	453	462	461	9	8
504	Gants	410	388	374	-22	-36
505	Narak	306	276	273	-30	-33
506	Kandawo	323	288	288	-35	-35
507	Anor	260	240	257	-20	-3
508	Tai	327	282	288	-45	-39
509	Aiome	243	252	261	9	18
510	Apali	395	348	338	-47	-57
511	Atemble	261	242	259	-19	-2
512	Nend	324	300	297	-24	-27
513	Andarum	264	265	270	1	6
514	Romkun	116	119	134	3	18
515	Banaro	482	453	430	-29	-52
516	Ap Ma	464	429	416	-35	-48
517	Gorovu	435	408	396	-27	-39
518	Breri	132	134	147	2	15
519	Akrukay	224	210	223	-14	-1
520	Paynamar	128	135	149	7	21
521	Utarmbung	298	294	300	-4	2
522	Igana	319	312	317	-7	-2
523	Kominimung	319	312	317	-7	-2
524	Itutang	101	112	136	11	35
525	Inapang	244	238	251	-6	7
526	Tanggu	332	319	312	-13	-20
527	Ningera	460	438	423	-22	-37
528	Musan	385	342	346	-43	-39

529	Bo	431	394	384	-37	-47
530	Amto	389	352	337	-37	-52
531	Angor	558	516	495	-42	-63
532	Busa	561	536	524	-25	-37
533	Nai	392	377	372	-15	-20
534	Yale	543	503	490	-40	-53
535	Baibai	570	534	503	-36	-67
536	Kwomtari	575	541	515	-34	-60
537	Imonda	389	363	360	-26	-29
538	Umeda	459	423	396	-36	-63
539	Daonda	252	269	291	17	39
540	Auwe	406	382	382	-24	-24
541	Fas	597	573	540	-24	-57
542	Kilmeri	568	538	506	-30	-62
543	Pagi	473	448	427	-25	-46
544	Ainbai	402	379	366	-23	-36
545	Krisa	528	503	471	-25	-57
546	Vanimo	206	230	261	24	55
547	Mehek	385	357	358	-28	-27
548	Malinguat	602	567	556	-35	-46
549	Yelogu	448	414	395	-34	-53
550	Iwam	418	375	369	-43	-49
551	Ama	294	293	291	-1	-3
552	Nimo	343	326	318	-17	-25
553	Nakwi	240	246	239	6	-1
554	Iteri	183	208	226	25	43
555	Rocky Peak	331	306	308	-25	-23
556	Yerakai	421	381	367	-40	-54
557	Pei	369	342	339	-27	-30
558	Walio	367	344	340	-23	-27
559	Iatmul	432	389	379	-43	-53
560	Kwoma	431	397	381	-34	-50
561	Ngala	390	368	361	-22	-29
562	Wogamusin	355	341	337	-14	-18
563	Chenapian	336	333	330	-3	-6
564	Yessan-Mayo	473	427	413	-46	-60
565	Chambri	334	323	321	-11	-13
566	Manambu	432	393	385	-39	-47
567	Wanib	536	507	493	-29	-43
568	Pasi	316	303	304	-13	-12
569	Amal	139	153	152	14	13
570	Namia	468	423	424	-45	-44
571	Kalou	472	427	412	-45	-60
572	Awun	563	519	509	-44	-54
573	Pahi	432	393	389	-39	-43
574	Ambulas	553	521	487	-32	-66
575	Hanga Hundi	629	601	581	-28	-48
576	Burui	250	258	261	8	11
577	Wasambu	522	488	463	-34	-59
578	Bongos	347	323	323	-24	-24
579	Yubanakor	570	527	504	-43	-66
580	Awar	202	195	200	-7	-2
581	Yaul	119	134	163	15	44
582	Mongol	465	436	412	-29	-53
583	Biwat	330	304	309	-26	-21
584	Langam	465	436	412	-29	-53
585	Angoram	509	463	435	-46	-74
586	Changriwa	273	286	298	13	25
587	Maramba	453	408	396	-45	-57
588	Aion	446	413	399	-33	-47
589	Abu	572	554	531	-18	-41
590	Igom	426	408	392	-18	-34
591	Aruamu	486	461	438	-25	-48
592	Bosngun	232	231	239	-1	7
593	Sepen	321	310	311	-11	-10
594	Buna	245	236	253	-9	8
595	Murik	434	398	387	-36	-47
596	Boikin	638	616	602	-22	-36
597	Kamasau	483	447	419	-36	-64
598	Urimo	386	354	347	-32	-39
599	Muniwara	626	600	581	-26	-45
600	Kis	337	321	320	-16	-17
601	Kaian	346	324	321	-22	-25
602	Borei	68	85	109	17	41
603	Taiap	137	142	161	5	24
604	Kopar	296	277	279	-19	-17

605	Watam	166	177	190	11	24
606	Bragat	516	488	449	-28	-67
607	Seti	454	384	371	-70	-83
608	Elkei	210	207	244	-3	34
609	Guriaso	333	324	320	-9	-13
610	Yis	431	397	393	-34	-38
611	Pouye	352	334	342	-18	-10
612	Ak	431	401	390	-30	-41
613	Karawa	438	393	391	-45	-47
614	Awtuw	162	186	222	24	60
615	Seta	447	383	372	-64	-75
616	Au	526	505	473	-21	-53
617	Olo	617	592	557	-25	-60
618	Yau	64	61	143	-3	79
619	Gnau	540	515	479	-25	-61
620	Yahang	540	511	496	-29	-44
621	Beli	394	373	374	-21	-20
622	Laeko-Libuat	501	471	443	-30	-58
623	Wiaki	543	510	468	-33	-75
624	Wanap	499	467	431	-32	-68
625	Siliput	302	294	306	-8	4
626	Nabi	381	352	351	-29	-30
627	Ningil	389	360	353	-29	-36
628	Yil	389	360	353	-29	-36
629	Dia	423	387	372	-36	-51
630	Agi	538	509	467	-29	-71
631	Aiku	538	509	467	-29	-71
632	Sinagen	164	166	221	2	57
633	Yapunda	516	488	449	-28	-67
634	Aruop	493	463	425	-30	-68
635	Sissano	200	208	211	8	11
636	Warapu	358	327	330	-31	-28
637	Aunalei	556	523	488	-33	-68
638	Puari	570	527	492	-43	-78
639	Rawo	316	312	314	-4	-2
640	Sera	379	347	351	-32	-28
641	Valman	252	257	271	5	19
642	Yakamul	410	374	365	-36	-45
643	Arop-Sissano	255	256	261	1	6
644	Tumleo	352	333	331	-19	-21
645	Malol	391	351	349	-40	-42
646	Aruok	428	392	377	-36	-51
647	Mufian	460	417	397	-43	-63
648	Bukiyip	527	496	465	-31	-62
649	Mende	578	552	525	-26	-53
650	Wamsak	421	399	389	-22	-32
651	Urim	558	541	514	-17	-44
652	Apos	571	528	504	-43	-67
653	Arapesh, Bumbita	571	527	504	-44	-67
654	Urat	448	415	399	-33	-49
655	Kombio	384	352	347	-32	-37
656	Eitiep	463	422	401	-41	-62
657	Alatil	183	191	236	8	53
658	Torricelli	360	327	329	-33	-31
659	Wom	447	410	390	-37	-57
660	Yambes	586	563	538	-23	-48
661	Terebu	628	604	594	-24	-34
662	Kaiep	398	362	356	-36	-42
663	Bungain	628	604	594	-24	-34
664	Elepi	451	401	373	-50	-78
665	Mandi	329	310	315	-19	-14
666	Biem	440	404	393	-36	-47
667	Wuvulu-Aua	195	179	175	-16	-20
668	Ulau-Suain	568	519	509	-49	-59
669	Wogeo	603	588	567	-15	-36
670	Kairiru	443	413	401	-30	-42
671	Seimat	343	322	316	-21	-27
672	Arop-Lokep	271	265	270	-6	-1
673	Kovai	453	395	391	-58	-62
674	Nomane	377	367	371	-10	-6
675	Wampar	621	608	588	-13	-33
676	Ampeeli-Wojokeso	510	514	529	4	19
677	Opao	309	306	311	-3	2
678	Akoye	460	432	410	-28	-50
679	Orokolo	332	324	332	-8	0
680	Keuru	463	441	417	-22	-46

681	Tairuma	367	357	355	-10	-12
682	Tainae	541	527	520	-14	-21
683	Simbari	596	602	605	6	9
684	Ankave	391	391	393	0	2
685	Hamtai	683	681	679	-2	-4
686	Kaki Ae	479	460	448	-19	-31
687	Menya	494	491	501	-3	7
688	Yagwoia	539	548	564	9	25
689	Angaatihia	574	568	579	-6	5
690	Kawacha	426	411	409	-15	-17
691	Watut, South	100	79	58	-21	-42
692	Ontenu	303	291	270	-12	-33
693	Gimi	439	434	451	-5	12
694	Fore	416	407	421	-9	5
695	Baruya	336	333	317	-3	-19
696	Awa	479	471	480	-8	1
697	Keyagana	288	256	224	-32	-64
698	Yagaria	489	491	496	2	7
699	Kosena	340	323	318	-17	-22
700	Awiaana	338	308	271	-30	-67
701	Kanite	270	246	213	-24	-57
702	Kamano	588	594	604	6	16
703	Usarufa	337	316	312	-21	-25
704	Kenati	356	345	329	-11	-27
705	Kamasa	280	278	282	-2	2
706	Watut, Middle	565	546	530	-19	-35
707	Omwunra-Toqura	396	399	400	3	4
708	Tairora	479	486	483	7	4
709	Waffa	435	442	446	7	11
710	Adzera	556	539	522	-17	-34
711	Watut, North	283	279	293	-4	10
712	Wampur	366	343	330	-23	-36
713	Buang, Mapos	424	403	393	-21	-31
714	Hote	524	524	531	0	7
715	Buang, Mangga	614	620	639	6	25
716	Susuami	430	431	425	1	-5
717	Mumeng	537	535	528	-2	-9
718	Biangai	413	397	407	-16	-6
719	Dengalu	572	563	582	-9	10
720	Zenag	474	471	462	-3	-12
721	Kapin	576	575	576	-1	0
722	Piu	400	401	388	1	-12
723	Dambi	576	576	577	0	1
724	Yamap	566	557	566	-9	0
725	Patep	584	588	596	4	12
726	Weri	341	312	294	-29	-47
727	Zia	511	492	462	-19	-49
728	Yekora	327	305	295	-22	-32
729	Suena	382	363	364	-19	-18
730	Bugawac	560	530	501	-30	-59
731	Iwal	583	572	560	-11	-23
732	Vehes	482	466	458	-16	-24
733	Numbami	233	234	248	1	15
734	Kela	390	362	354	-28	-36
735	Mese	479	464	461	-15	-18
736	Nabak	309	287	264	-22	-45
737	Gorakor	474	468	462	-6	-12
738	Labu	573	567	553	-6	-20
739	Musom	222	219	233	-3	11
740	Aribwaung	308	304	311	-4	3
741	Numanggang	159	142	137	-17	-22
742	Uri	385	371	376	-14	-9
743	Mamaa	478	455	443	-23	-35
744	Nimi	502	496	486	-6	-16
745	Nakama	511	516	531	5	20
746	Munkip	380	364	369	-16	-11
747	Duwet	398	371	363	-27	-35
748	Nafi	398	371	363	-27	-35
749	Nek	442	449	443	7	1
750	Nuk	398	371	363	-27	-35
751	Kate	415	416	408	1	-7
752	Kosorong	440	428	415	-12	-25
753	Burum-Mindik	470	451	449	-19	-21
754	Tami	453	440	430	-13	-23
755	Mape	433	420	422	-13	-11
756	Yabem	426	426	419	0	-7

757	Kube	386	371	359	-15	-27
758	Tobo	360	347	336	-13	-24
759	Dedua	471	452	439	-19	-32
760	Migabac	449	434	420	-15	-29
761	Sene	267	275	290	8	23
762	Ufim	261	240	239	-21	-22
763	Kesawai	316	299	312	-17	-4
764	Inoke-Yate	355	337	334	-18	-21
765	Sinasina	377	363	347	-14	-30
766	Siane	389	380	387	-9	-2
767	Salt-Yui	392	380	375	-12	-17
768	Chuave	246	220	187	-26	-59
769	Benabena	459	462	468	3	9
770	Yaweyuha	400	388	383	-12	-17
771	Tokano	222	181	148	-41	-74
772	Dano	308	297	280	-11	-28
773	Biyom	313	283	277	-30	-36
774	Alekano	388	376	364	-12	-24
775	Isabi	11	7	9	-4	-2
776	Abaga	288	268	254	-20	-34
777	Gadsup	412	399	386	-13	-26
778	Agarabi	489	495	496	6	7
779	Kambaira	428	416	407	-12	-21
780	Binumarrien	415	402	398	-13	-17
781	Mari	125	134	183	9	58
782	Rawa	371	354	367	-17	-4
783	Dumpu	283	269	284	-14	1
784	Wasembo	524	526	526	2	2
785	Nahu	410	410	433	0	23
786	Duduela	392	366	357	-26	-35
787	Sausi	144	155	185	11	41
788	Tauya	383	343	328	-40	-55
789	Gende	430	410	416	-20	-14
790	Asas	256	255	270	-1	14
791	Sinsauru	405	382	373	-23	-32
792	Girawa	385	359	347	-26	-38
793	Usino	360	326	316	-34	-44
794	Faita	81	91	157	10	76
795	Musak	474	430	406	-44	-68
796	Kwato	215	203	215	-12	0
797	Urigina	338	316	316	-22	-22
798	Danaru	388	353	345	-35	-43
799	Sumau	402	368	350	-34	-52
800	Arawum	327	316	310	-11	-17
801	Yangulam	245	242	257	-3	12
802	Pulabu	264	257	265	-7	1
803	Jilim	44	59	102	15	58
804	Songum	262	253	262	-9	0
805	Saep	155	152	172	-3	17
806	Dumun	295	278	278	-17	-17
807	Ganglau	322	308	301	-14	-21
808	Bongu	346	334	322	-12	-24
809	Male	331	311	305	-20	-26
810	Rerau	175	195	202	20	27
811	Ogea	284	276	275	-8	-9
812	Anjam	174	195	202	21	28
813	Mindiri	191	213	228	22	37
814	Siroi	352	333	321	-19	-31
815	Mato	388	382	365	-6	-23
816	Komutu	206	201	230	-5	24
817	Awara	266	241	229	-25	-37
818	Tuma-Irumu	276	242	227	-34	-49
819	Wantoat	376	361	348	-15	-28
820	Finungwa	485	463	451	-22	-34
821	Sauk	461	465	465	4	4
822	Gusan	323	305	285	-18	-38
823	Sakam	283	263	249	-20	-34
824	Som	452	442	447	-10	-5
825	Yopno	405	403	416	-2	11
826	Yau	295	277	256	-18	-39
827	Timbe	295	271	257	-24	-38
828	Malasanga	183	193	214	10	31
829	Sialum	397	365	364	-32	-33
830	Nomu	269	237	221	-32	-48
831	Komba	487	472	468	-15	-19
832	Momare	334	327	331	-7	-3

833	Ono	366	339	332	-27	-34
834	Sio	165	183	201	18	36
835	Selepet	412	389	374	-23	-38
836	Weliki	262	247	247	-15	-15
837	Barim	477	439	423	-38	-54
838	Kinalakna	327	302	315	-25	-12
839	Kumukio	388	363	371	-25	-17
840	Gitua	380	361	358	-19	-22
841	Asaroo	393	380	366	-13	-27
842	Gwahatike	164	183	195	19	31
843	Mebu	272	267	274	-5	2
844	Ngaing	376	361	356	-15	-20
845	Nankina	254	242	227	-12	-27
846	Guiarak	231	235	240	4	9
847	Bulgebi	275	276	278	1	3
848	Asat	350	338	325	-12	-25
849	Neko	376	361	356	-15	-20
850	Yabong	243	241	257	-2	14
851	Nekgini	379	363	358	-16	-21
852	Kolom	384	374	364	-10	-20
853	Gira	204	222	243	18	39
854	Awad Bing	381	376	366	-5	-15
855	Wab	164	183	195	19	31
856	Lemio	164	183	195	19	31
857	Malalamai	179	207	225	28	46
858	Ronji	298	285	292	-13	-6
859	Domung	416	391	387	-25	-29
860	Gabutamon	53	64	92	11	39
861	Bonkiman	296	285	292	-11	-4
862	Yagomi	350	343	332	-7	-18
863	Degenan	350	343	332	-7	-18
864	Forak	350	338	325	-12	-25
865	Lukep	325	328	323	3	-2
866	Getmata	340	336	331	-4	-9
867	Gasmata	191	196	202	5	11
868	Avau	301	312	311	11	10
869	Sengseng	305	317	320	12	15
870	Aiklep	244	253	253	9	9
871	Kaulong	489	457	442	-32	-47
872	Mengen	592	575	552	-17	-40
873	Miu	232	254	264	22	32
874	Gimi	391	389	385	-2	-6
875	Akolet	302	303	307	1	5
876	Solong	467	432	418	-35	-49
877	Lamogai	493	464	441	-29	-52
878	Mangseng	439	412	404	-27	-35
879	Psohoh	396	394	388	-2	-8
880	Mamusi	475	470	449	-5	-26
881	Lote	324	332	328	8	4
882	Lusi	393	373	362	-20	-31
883	Amara	369	358	355	-11	-14
884	Mbula	415	398	383	-17	-32
885	Mutu	288	277	280	-11	-8
886	Maleu-Kilenge	522	489	470	-33	-52
887	Mouk-Aria	470	443	418	-27	-52
888	Barai	311	294	308	-17	-3
889	Anem	455	433	417	-22	-38
890	Nakanai	494	450	423	-44	-71
891	Bebeli	407	393	381	-14	-26
892	Pele-Ata	496	493	483	-3	-13
893	Kove	430	403	391	-27	-39
894	Bola	356	333	325	-23	-31
895	Nauna	351	321	304	-30	-47
896	Manam	88	82	121	-6	33
897	Yarawata	458	425	409	-33	-49
898	Anam	198	201	218	3	20
899	Amaimon	476	439	421	-37	-55
900	Mum	556	526	493	-30	-63
901	Sileibi	371	340	338	-31	-33
902	Abasakur	323	286	296	-37	-27
903	Usan	380	355	333	-25	-47
904	Yaben	389	361	358	-28	-31
905	Koguman	404	367	359	-37	-45
906	Parawen	615	602	575	-13	-40
907	Hinihon	467	450	456	-17	-11
908	Wanambre	266	239	248	-27	-18

909	Musar	426	388	362	-38	-64
910	Miani	448	411	391	-37	-57
911	Wadaginam	130	140	166	10	36
912	Moresada	357	346	342	-11	-15
913	Anamgura	296	291	295	-5	-1
914	Maia	496	449	432	-47	-64
915	Lilau	440	404	387	-36	-53
916	Monumbo	450	416	403	-34	-47
917	Sepa	277	275	288	-2	11
918	Mala	560	526	513	-34	-47
919	Maiani	511	491	480	-20	-31
920	Mawak	140	119	140	-21	0
921	Kowaki	344	315	300	-29	-44
922	Mauwake	556	524	512	-32	-44
923	Medebur	558	524	512	-34	-46
924	Bagupi	461	426	408	-35	-53
925	Gal	455	425	406	-30	-49
926	Bau	319	303	294	-16	-25
927	Uya	528	508	479	-20	-49
928	Bemal	528	508	479	-20	-49
929	Marik	440	391	383	-49	-57
930	Munit	314	296	287	-18	-27
931	Sihan	319	303	294	-16	-25
932	Utu	130	123	159	-7	29
933	Kare	419	362	351	-57	-68
934	Baimak	282	266	270	-16	-12
935	Mawan	282	266	270	-16	-12
936	Saruga	461	427	408	-34	-53
937	Silopi	452	424	406	-28	-46
938	Matepi	452	423	406	-29	-46
939	Wagi	543	511	489	-32	-54
940	Isebe	355	314	306	-41	-49
941	Amele	288	271	275	-17	-13
942	Gumalu	177	175	199	-2	22
943	Bilbil	524	487	475	-37	-49
944	Panim	524	487	475	-37	-49
945	Nobanob	408	374	354	-34	-54
946	Nake	484	447	413	-37	-71
947	Gedaged	524	487	475	-37	-49
948	Rempi	225	220	211	-5	-14
949	Mosimo	316	294	291	-22	-25
950	Bilakura	341	320	311	-21	-30
951	Ukuriguma	457	425	408	-32	-49
952	Samosa	615	602	575	-13	-40
953	Wamas	244	217	228	-27	-16
954	Murupi	347	313	305	-34	-42
955	Korak	290	284	282	-6	-8
956	Moere	288	279	281	-9	-7
957	Bepour	246	248	251	2	5
958	Malas	220	218	227	-2	7
959	Brem	271	264	263	-7	-8
960	Matukar	428	379	367	-49	-61
961	Rapting	453	408	379	-45	-74
962	Garus	177	186	197	9	20
963	Yoidik	428	379	367	-49	-61
964	Waskia	353	321	314	-32	-39
965	Dimir	298	286	273	-12	-25
966	Bargam	358	321	312	-37	-46
967	Takia	412	357	331	-55	-81
968	Nali	225	212	204	-13	-21
969	Kurti	247	241	236	-6	-11
970	Khehek	371	352	332	-19	-39
971	Nyindrou	306	295	281	-11	-25
972	Bipi	245	219	206	-26	-39
973	Likum	273	254	248	-19	-25
974	Bohuai	429	399	380	-30	-49
975	Ere	347	323	310	-24	-37
976	Kele	275	262	250	-13	-25
977	Hermit	333	311	287	-22	-46
978	Mondropolon	334	310	299	-24	-35
979	Sori-Harengan	336	327	305	-9	-31
980	Ponam	406	382	360	-24	-46
981	Titan	441	409	387	-32	-54
982	Lou	314	279	265	-35	-49
983	Baluan-Pam	343	305	289	-38	-54
984	Lenkau	296	275	273	-21	-23

985	Penchal	433	404	384	-29	-49
986	Leipon	285	273	254	-12	-31
987	Koro	366	346	330	-20	-36
988	Elu	361	338	324	-23	-37
989	Lele	361	338	324	-23	-37
990	Papitalai	279	262	246	-17	-33
991	Loniu	280	263	246	-17	-34
992	Pak-Tong	314	292	272	-22	-42
993	Mokerang	297	283	266	-14	-31
994	Lavatbura-Lamusong	469	437	426	-32	-43
995	Ramoaina	227	229	225	2	-2
996	Qaqet	519	478	454	-41	-65
997	Bulu	243	203	207	-40	-36
998	Uneapa	121	134	142	13	21
999	Muduapa	76	82	93	6	17
1000	Makolkol	463	451	424	-12	-39
1001	Kol	562	542	511	-20	-51
1002	Tomoip	299	300	282	1	-17
1003	Sulka	432	420	404	-12	-28
1004	Meramera	500	451	436	-49	-64
1005	Mali	573	545	499	-28	-74
1006	Simbali	627	616	578	-11	-49
1007	Ura	594	572	534	-22	-60
1008	Barok	408	386	368	-22	-40
1009	Minigir	300	286	279	-14	-21
1010	Kuanua	467	443	423	-24	-44
1011	Taulil-Butam	386	363	357	-23	-29
1012	Madak	570	527	505	-43	-65
1013	Bilur	311	306	302	-5	-9
1014	Kairak	391	367	354	-24	-37
1015	Patpatar	447	416	400	-31	-47
1016	Kandas	536	517	478	-19	-58
1017	Lak	635	624	614	-11	-21
1018	Tangga	448	427	412	-21	-36
1019	Konomala	479	458	431	-21	-48
1020	Sursurunga	482	466	429	-16	-53
1021	Kara	360	336	325	-24	-35
1022	Kuot	424	394	375	-30	-49
1023	Nalik	369	341	326	-28	-43
1024	Tigak	394	369	352	-25	-42
1025	Tiang	305	299	285	-6	-20
1026	Lihir	383	359	337	-24	-46
1027	Notsi	354	332	315	-22	-39
1028	Mandara	487	470	456	-17	-31
1029	Tungag	609	573	559	-36	-50
1030	Mussau-Emira	528	500	474	-28	-54
