



# MANGKHUT-18 - Population Exposure Estimation based on bulletin n. 31

The population exposure, summarized by Admin 0, 1 and 2, has been calculated using a 1 km resolution LandScan raster (LandScan Database 2015). Admin boundaries are defined by Gaul 2015 dataset. Windspeed buffers are produced by GDACS (JRC). This is a preliminary analysis and has not yet been validated in the field.

Analysis performed by ADAM (Automated Disaster Analysis and Mapping) on 14-09-2018 at 14:47 UTC  
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admin0	admin1	admin2	population			Total
			60km/h	90km/h	120km/h	
CHINA	Fujian Sheng	Longyan	1,693,439			1,693,439
		Quanzhou	4,295,105			4,295,105
		Xiamen	3,354,012			3,354,012
		Zhangzhou	5,022,030			5,022,030
	Guangdong Sheng	Chaozhou	2,379,262			2,379,262
		Dongguan		8,374,107		8,374,107
		Foshan		6,856,152		6,856,152
		Guangzhou	297,030	13,069,435		13,366,465
		Heyuan	2,546,348	441,527		2,987,875
		Huizhou	271,892	4,529,809		4,801,701
		Jiangmen		2,075,825	2,383,527	4,459,352
		Jieyang	2,043,156	3,834,752		5,877,908
		Maoming		21,497	5,856,926	5,878,423
		Meizhou	4,270,276	48,018		4,318,294
		Qingyuan	3,645,636	113,707		3,759,343
		Shantou	1,794,965	3,807,715		5,602,680
		Shanwei		2,998,842		2,998,842
		Shaoguan	2,901,653			2,901,653
		Shenzhen		10,206,359	16	10,206,375
		Yangjiang		46,355	2,439,131	2,485,486
		Yunfu		2,281,289	160,884	2,442,173
		Zhanjiang		1,958,669	4,530,380	6,489,049
		Zhaoqing	1,297,110	2,571,366		3,868,476
		Zhongshan		2,921,114	403,034	3,324,148
	Zhuhai			1,592,892	1,592,892	
	Guangxi Zhuangzu Zizhiqu	Baise	1,298,309	1,523,618	204,496	3,026,423
		Beihai		1,151	1,489,683	1,490,834
		Chongzuo	268,850	2,314,217	2,356,536	4,939,603
		Fangchenggang		27,600	771,189	798,789
		Guigang	392,406	3,802,569	28,633	4,223,608
		Guilin	1,637,895			1,637,895
		Hechi	2,517,557			2,517,557
		Hezhou	2,020,106			2,020,106
		Laibin	2,263,354	526,597		2,789,951
		Liuzhou	2,422,756			2,422,756
		Nanning		735,149	3,397,634	4,132,783
		Qinzhou			3,051,770	3,051,770
		Wuzhou	751,674	2,222,831	782	2,975,287
		Yulin		1,607,039	3,984,823	5,591,862
	Hainan Sheng	Haikou	51,953	1,232,479		1,284,432
		Hainan	5,635,618	755,079		6,390,697
		Sanya	2,744			2,744
	Hunan Sheng	Chenzhou	561,020			561,020
		Yongzhou	660,237			660,237
	Jiangxi Sheng	Ganzhou	2,038,645			2,038,645
	Yunnan Sheng	Chuxiong Yi	157,687	3,074		160,761
		Dali Bai	8,638			8,638
		Honghe Hani and Yi	891,379	3,682,975		4,574,354
		Kunming	268,704			268,704
		Lincang	808,865	94,301		903,166
		Pu'er	616,408	898,190		1,514,598
		Qujing	45,894			45,894
Wenshan Zhuang and Miao		1,079,484	2,550,638		3,630,122	
Yuxi		1,456,779	819,419		2,276,198	
CHINA - TOT		63,668,876	88,953,464	32,652,336	185,274,676	
GUAM	---	---	16,859	142,125	158,984	
GUAM - TOT			16,859	142,125	158,984	
HONG KONG	---	---	1,160,147	5,572,887	6,733,034	

HONG KONG - TOT				1,160,147	5,572,887	6,733,034
LAO PEOPLE'S DEMOCRATIC REPUBLIC	Phongsali	Nhot Ou	987			987
LAO PEOPLE'S DEMOCRATIC REPUBLIC - TOT			987			987
NORTHERN MARIANA ISLANDS	---	---		46,603	4,626	51,229
NORTHERN MARIANA ISLANDS - TOT				46,603	4,626	51,229
PHILIPPINES	Cordillera Administrative region (CAR)	Abra			277,048	277,048
		Apayao			125,269	125,269
		Benguet	552,830		201,429	754,259
		Ifugao			225,831	225,831
		Kalinga			232,670	232,670
		Mountain Province			191,513	191,513
	National Capital region (NCR)	Metropolitan Manila	13,450,560			13,450,560
	Region I (Ilocos region)	Ilocos Norte			682,315	682,315
		Ilocos Sur			794,610	794,610
		La Union	457,609		393,842	851,451
		Pangasinan	3,164,255			3,164,255
	Region II (Cagayan Valley)	Batanes	8,544			8,544
		Cagayan			1,332,528	1,332,528
		Isabela			1,685,523	1,685,523
		Nueva Vizcaya	242,741		251,733	494,474
	Region III (Central Luzon)	Quirino	58,713		131,212	189,925
		Aurora	172,673		34,032	206,705
		Bataan	527,326	58,613		585,939
		Bulacan	508,288	2,373,429		2,881,717
		Nueva Ecija		2,239,208		2,239,208
		Pampanga	268	2,296,224		2,296,492
		Tarlac		1,351,342		1,351,342
		Zambales	285,135	492,036		777,171
	Region IV (Southern Tagalog)	Marinduque	279,008			279,008
		Mindoro Occidental	167,123			167,123
		Mindoro Oriental	613,103			613,103
		Romblon	11			11
	Region IV-A (Calabarzon)	Batangas	2,368,097			2,368,097
		Cavite	2,238,620			2,238,620
		Laguna	3,184,884			3,184,884
		Quezon	2,078,466	91,495		2,169,961
		Rizal	2,139,849	526		2,140,375
	Region V (Bicol region)	Albay	1,369,870			1,369,870
		Camarines Norte	591,014			591,014
		Camarines Sur	2,015,379			2,015,379
		Catanduanes	238,159			238,159
		Masbate	24,729			24,729
	Region VIII (Eastern Visayas)	Sorsogon	667,733			667,733
		Eastern Samar	98			98
		Northern Samar	360,821			360,821
PHILIPPINES - TOT			33,108,541	13,560,238	6,559,555	53,228,334
TAIWAN	Taiwan Sheng	Name Unknown	5,906,247	91,334		5,997,581
TAIWAN - TOT			5,906,247	91,334		5,997,581
VIET NAM	Bac Giang	Bac Giang City	112,428			112,428
		Hiep Hoa	240,966			240,966
		Lang Giang	116,961	95,293		212,254
		Luc Nam	173,850	36,864		210,714
		Luc Ngan	174	234,253		234,427
		Son Dong	1,314	75,415		76,729
		Tan Yen	167,255	6,866		174,121
		Viet Yen	170,479			170,479
		Yen Dung	174,352			174,352
		Yen The	88	107,449		107,537
	Bac Kan	Ba Be			50,720	50,720
		Bac Kan Township		8,210	32,594	40,804
		Bach Thong		4,118	28,976	33,094
		Cho Don		35,209	17,914	53,123
		Cho Moi		40,031	15	40,046
		Na Ri		7,652	34,011	41,663
		Ngan Son			31,322	31,322
	Pac Nam			32,903	32,903	
	Bac Ninh	Bac Ninh Township	177,918			177,918
		Gia Binh	106,515			106,515
		Luong Tai	98,896			98,896
		Que Vo	144,040			144,040
		Thuan Thanh	162,734			162,734

	Tien Du	138,708			138,708
	Tu Son	149,310			149,310
	Yen Phong	140,204			140,204
Cao Bang	Bao Lac			54,896	54,896
	Bao Lam			60,742	60,742
	Cao Bang Township			39,198	39,198
	Ha Lang			27,074	27,074
	Ha Quang			35,551	35,551
	Hoa An			93,188	93,188
	Nguyen Binh			43,132	43,132
	Phuc Hoa			24,849	24,849
	Quang Uyen			43,972	43,972
	Thach An			33,302	33,302
	Thong Nong			25,634	25,634
	Tra Linh			23,367	23,367
	Trung Khanh			53,086	53,086
	Dien Bien	Muong Lay	28,058		
Muong Lay Township		12,933			12,933
Muong Nhe		37,076			37,076
Tua Chua		51,937			51,937
Tuan Giao		25,869			25,869
Ha Giang	Bac Me		532	49,351	49,883
	Bac Quang		113,379		113,379
	Dong Van		70,737		70,737
	Ha Giang Township		51,516	843	52,359
	Hoang Su Phi		65,663		65,663
	Meo Vac		48,699	29,142	77,841
	Quan Ba		49,166		49,166
	Quang Binh		62,269		62,269
	Vi Xuyen		98,920	5,295	104,215
	Xin Man		66,404		66,404
	Yen Minh		72,963	12,386	85,349
Ha Nam	Binh Luc	159,640			159,640
	Duy Tien	166,444			166,444
	Kim Bang	147,243			147,243
	Ly Nhan	205,818			205,818
	Phu Ly Township	26,648			26,648
	Thanh Lien	149,550			149,550
Ha Noi City	Ba Dinh	299,930			299,930
	Cau Giay	194,636			194,636
	Dong Anh	366,657			366,657
	Dong Da	362,695			362,695
	Gia Lam	274,324			274,324
	Hai Ba Trung	319,976			319,976
	Hoan Kiem	156,805			156,805
	Hoang Mai	440,122			440,122
	Long Bien	255,101			255,101
	Soc Son	306,297			306,297
	Tay Ho	133,377			133,377
	Thanh Tri	249,475			249,475
	Thanh Xuan	238,154			238,154
	Tu Lien	404,995			404,995
Ha Tay	Ba Vi	265,322			265,322
	Chuong My	300,165			300,165
	Dan Phuong	152,997			152,997
	Ha Dong Township	226,316			226,316
	Hoai Duc	207,400			207,400
	My Duc	176,397			176,397
	Phu Xuyen	187,413			187,413
	Phuc Tho	183,031			183,031
	Quoc Oai	172,620			172,620
	Son Tay Township	135,694			135,694
	Thach That	190,580			190,580
	Thanh Oai	190,474			190,474
	Thuong Tin	255,214			255,214
	Ung Hoa	218,576			218,576
	Hai Duong	Binh Giang	111,438		
Cam Giang		141,762			141,762
Chi Linh		174,215			174,215
Gia Loc		146,849			146,849
Hai Duong City		238,969			238,969
Kim Thanh		141,063			141,063
Kinh Mon		169,526			169,526
Nam Sach		129,111			129,111
Ninh Giang	148,769			148,769	

	<b>Thanh Ha</b>	172,039			172,039
	<b>Thanh Mien</b>	141,841			141,841
	<b>Tu Ky</b>	176,777			176,777
<b>Hai Phong City</b>	<b>An Hai</b>	368,672			368,672
	<b>An Lao</b>	143,058			143,058
	<b>Bach Long Vi</b>	300			300
	<b>Cat Hai</b>	29,209			29,209
	<b>Do Son Township</b>	34,082			34,082
	<b>Hong Bang</b>	73,205			73,205
	<b>Kien An</b>	100,516			100,516
	<b>Kien Thuy</b>	195,786			195,786
	<b>Le Chan</b>	120,501			120,501
	<b>Ngo Quyen</b>	253,833			253,833
	<b>Thuy Nguyen Ward</b>	334,379			334,379
	<b>Tien Lang</b>	158,499			158,499
	<b>Vinh Bao</b>	194,570			194,570
	<b>Hoa Binh</b>	<b>Cao Phong</b>	7,863		
<b>Da Bac</b>		51,489			51,489
<b>Hoa Binh Township</b>		90,261			90,261
<b>Kim Boi</b>		148,854			148,854
<b>Ky Son</b>		42,462			42,462
<b>Lac Son</b>		5			5
<b>Lac Thuy</b>		43,134			43,134
<b>Luong Son</b>		69,887			69,887
<b>Hung Yen</b>	<b>An Thi</b>	138,636			138,636
	<b>Hung Yen Township</b>	35,818			35,818
	<b>Khoai Chau</b>	191,061			191,061
	<b>Kim Dong</b>	144,184			144,184
	<b>My Hao</b>	117,692			117,692
	<b>Phu Cu</b>	89,099			89,099
	<b>Tien Lu</b>	160,671			160,671
	<b>Van Giang</b>	105,303			105,303
	<b>Van Lam</b>	113,675			113,675
<b>Yen My</b>	144,397			144,397	
<b>Lai Chau</b>	<b>Lai Chau township</b>	29,478			29,478
	<b>Muong Te</b>	55,818			55,818
	<b>Phong Tho</b>	470	74,712		75,182
	<b>Sin Ho</b>	81,270	2,909		84,179
	<b>Tam Duong</b>	46,745	6,528		53,273
	<b>Thanh Uyen</b>	114,466			114,466
<b>Lang Son</b>	<b>Bac Son</b>		72,524		72,524
	<b>Binh Gia</b>		39,172	17,635	56,807
	<b>Cao Loc</b>		45,530	39,419	84,949
	<b>Chi Lang</b>		81,285		81,285
	<b>Dinh Lap</b>		29,115		29,115
	<b>Huu Lung</b>		123,561		123,561
	<b>Lang Son City</b>		88,481	2,489	90,970
	<b>Loc Binh</b>		85,337	13	85,350
	<b>Trang Dinh</b>			64,076	64,076
	<b>Van Lang</b>		2,417	53,552	55,969
	<b>Van Quan</b>		49,992	8,119	58,111
<b>Lao Cai</b>	<b>Bac Ha</b>		60,780		60,780
	<b>Bao Thang</b>	10	109,363		109,373
	<b>Bao Yen</b>		84,786		84,786
	<b>Bat Xat</b>		77,423		77,423
	<b>Lao Cai City</b>		107,853		107,853
	<b>Muong Khuong</b>		57,419		57,419
	<b>Sa Pa</b>	4,806	54,209		59,015
	<b>Si Ma Cai</b>		33,863		33,863
	<b>Van Ban</b>	54,194	32,058		86,252
<b>Nam Dinh</b>	<b>Giao Thuy</b>	209,150			209,150
	<b>Hai Hau</b>	81,818			81,818
	<b>My Loc</b>	79,236			79,236
	<b>Nam Dinh City</b>	262,755			262,755
	<b>Nam Truc</b>	211,849			211,849
	<b>Nghia Hung</b>	3,616			3,616
	<b>Truc Ninh</b>	119,641			119,641
	<b>Vu Ban</b>	142,279			142,279
	<b>Xuan Truong</b>	173,543			173,543
<b>Y Yen</b>	65,230			65,230	
<b>Phu Tho</b>	<b>Cam Khe</b>	133,865			133,865
	<b>Doan Hung</b>	115,972			115,972
	<b>Ha Hoa</b>	114,390			114,390
	<b>Lam Thao</b>	125,952			125,952
	<b>Phu Ninh</b>	112,365			112,365

		<b>Phu Tho Township</b>	47,710			47,710
		<b>Tam Nong</b>	92,271			92,271
		<b>Thanh Ba</b>	116,234			116,234
		<b>Thanh Son</b>	217,340			217,340
		<b>Thanh Thuy</b>	70,508			70,508
		<b>Viet Tri City</b>	145,680			145,680
		<b>Yen Lap</b>	90,003			90,003
	<b>Quang Ninh</b>	<b>Ba Che</b>		20,025		20,025
		<b>Binh Lieu</b>		30,686		30,686
		<b>Cam Pha Township</b>	32,564	94,465		127,029
		<b>Co To</b>		4,463		4,463
		<b>Dam Ha</b>		36,527		36,527
		<b>Dong Trieu</b>	178,856			178,856
		<b>Ha Long City</b>	229,190			229,190
		<b>Hai Ha</b>		56,402	346	56,748
		<b>Hoanh Bo</b>	47,039	2,833		49,872
		<b>Mong Cai Township</b>		88,223	6,281	94,504
		<b>Tien Yen</b>		48,144		48,144
		<b>Uong Bi Township</b>	118,371			118,371
		<b>Van Don</b>	1,693	34,841		36,534
		<b>Yen Hung</b>	131,762			131,762
	<b>Son La</b>	<b>Bac Yen</b>	37,157			37,157
		<b>Mai Son</b>	122			122
		<b>Moc Chau</b>	4,501			4,501
		<b>Muong La</b>	90,166			90,166
		<b>Phu Yen</b>	118,185			118,185
		<b>Quynh Nhai</b>	34,842			34,842
		<b>Thuan Chau</b>	37,052			37,052
	<b>Thai Binh</b>	<b>Dong Hung</b>	255,591			255,591
		<b>Hung Ha</b>	271,708			271,708
		<b>Kien Xuong</b>	249,466			249,466
		<b>Quynh Phu</b>	266,234			266,234
		<b>Thai Binh City</b>	186,242			186,242
		<b>Thai Thuy</b>	269,687			269,687
		<b>Tien Hai</b>	231,167			231,167
		<b>Vu Thu</b>	245,697			245,697
	<b>Thai Nguyen</b>	<b>Dai Tu</b>	68,831	100,007		168,838
		<b>Dinh Hoa</b>		95,630		95,630
		<b>Dong Hy</b>		142,149		142,149
		<b>Pho Yen</b>	152,111			152,111
		<b>Phu Binh</b>	103,116	54,093		157,209
		<b>Phu Luong</b>		111,301		111,301
		<b>Song Cong Township</b>	52,844			52,844
		<b>Thai Nguyen City</b>	33,744	237,882		271,626
		<b>Vo Nhai</b>		70,511		70,511
	<b>Tuyen Quang</b>	<b>Chiem Hoa</b>		145,314	572	145,886
		<b>Ham Yen</b>		113,972		113,972
		<b>Na Hang</b>		245	67,565	67,810
		<b>Son Duong</b>	151,184	51,661		202,845
		<b>Tuyen Quang Township</b>		95,661		95,661
		<b>Yen Son</b>	81,789	96,574		178,363
	<b>Vinh Phuc</b>	<b>Binh Xuyen</b>	128,618			128,618
		<b>Lap Thach</b>	269,293			269,293
		<b>Me Linh</b>	219,405			219,405
		<b>Phuc Yen township</b>	102,278			102,278
		<b>Tam Dao</b>	78,524			78,524
		<b>Tam Duong</b>	109,512			109,512
		<b>Vinh Tuong</b>	206,523			206,523
		<b>Vinh Yen Township</b>	91,523			91,523
		<b>Yen Lac</b>	153,333			153,333
	<b>Yen Bai</b>	<b>Luc Yen</b>	75	112,804		112,879
		<b>Mu Cang Chai</b>	53,810			53,810
		<b>Nghia Lo Township</b>	18,254			18,254
		<b>Tram Tau</b>	28,718			28,718
		<b>Tran Yen</b>	81,177			81,177
		<b>Van Chan</b>	171,001			171,001
		<b>Van Yen</b>	120,441	6,541		126,982
		<b>Yen Bai City</b>	104,893			104,893
		<b>Yen Binh</b>	84,450	21,061		105,511
	<b>VIET NAM - TOT</b>		24,567,014	4,542,940	1,143,530	30,253,484
	<b>All - TOT</b>		127,251,665	108,371,585	46,075,059	281,698,309