



## MANGKHUT-18 - Population Exposure Estimation based on bulletin n. 33

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 15-09-2018 at 02:02 UTC  
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admin0	admin1	admin2	population			Total	
			60km/h	90km/h	120km/h		
CHINA	Fujian Sheng	Longyan	392,002			392,002	
		Quanzhou	1,503			1,503	
		Xiamen	350,345			350,345	
		Zhangzhou	4,494,996			4,494,996	
	Guangdong Sheng	Chaozhou	2,416,371			2,416,371	
		Dongguan	309,133	7,988,125		8,297,258	
		Foshan	912,253	6,101,683		7,013,936	
		Guangzhou	6,405,800	6,804,118		13,209,918	
		Heyuan	2,999,988			2,999,988	
		Huizhou	2,714,558	2,045,673		4,760,231	
		Jiangmen		3,585,566	913,147	4,498,713	
		Jieyang	5,978,627			5,978,627	
		Maoming		120,521	5,841,306	5,961,827	
		Meizhou	4,313,546			4,313,546	
		Qingyuan	3,769,127			3,769,127	
		Shantou	5,524,503			5,524,503	
		Shanwei	1,517,102	1,510,738		3,027,840	
		Shaoguan	2,687,678			2,687,678	
		Shenzhen		10,328,018		10,328,018	
		Yangjiang		125,626	2,389,704	2,515,330	
		Yunfu	85,872	2,373,053	987	2,459,912	
		Zhanjiang		1,420,696	5,399,794	6,820,490	
		Zhaoqing	2,586,996	1,283,498		3,870,494	
		Zhongshan		3,313,876		3,313,876	
	Zhuhai		1,608,931	19,369	1,628,300		
	Guangxi Zhuangzu Zizhiqu	Baise	2,080,511	488,429		2,568,940	
		Beihai		706	1,493,365	1,494,071	
		Chongzuo	1,864,060	2,850,870	240,677	4,955,607	
		Fangchenggang	918	245,280	589,067	835,265	
		Guigang	2,898,224	1,339,725		4,237,949	
		Guilin	1,303,857			1,303,857	
		Hechi	1,264,470			1,264,470	
		Hezhou	2,028,218			2,028,218	
		Laibin	2,595,586			2,595,586	
		Liuzhou	2,316,643			2,316,643	
		Nanning	567,381	2,838,176	719,386	4,124,943	
		Qinzhou		2,133	3,076,571	3,078,704	
		Wuzhou	2,048,936	908,003		2,956,939	
		Yulin		2,585,474	3,006,031	5,591,505	
	Hainan Sheng	Haikou	88,653	1,167,494		1,256,147	
		Hainan	5,715,738	805,940		6,521,678	
		Sanya	578,144			578,144	
	Hunan Sheng	Chenzhou	191,978			191,978	
		Yongzhou	455,296			455,296	
	Jiangxi Sheng	Ganzhou	1,283,450			1,283,450	
	Yunnan Sheng	Honghe Hani and Yi	2,114,691	1,387,249		3,501,940	
		Wenshan Zhuang and Miao	2,176,351	1,132,244		3,308,595	
			Yuxi	2,369		2,369	
	CHINA - TOT			79,035,874	64,361,845	23,689,404	167,087,123
	GUAM	---	---		15,599	139,476	155,075
GUAM - TOT				15,599	139,476	155,075	
HONG KONG	---	---		6,831,501		6,831,501	
HONG KONG - TOT				6,831,501		6,831,501	
NORTHERN MARIANA ISLANDS	---	---			3,054	38,379	
NORTHERN MARIANA ISLANDS - TOT				35,325	3,054	38,379	
PHILIPPINES	Cordillera Administrative region (CAR)	Abra			276,072	276,072	
		Apayao			131,438	131,438	

		<b>Benguet</b>		665,787	89,993	755,780
		<b>Ifugao</b>		5,724	234,875	240,599
		<b>Kalinga</b>			238,332	238,332
		<b>Mountain Province</b>			195,040	195,040
	<b>National Capital region (NCR)</b>	<b>Metropolitan Manila</b>	13,243,822			13,243,822
	<b>Region I (Ilocos region)</b>	<b>Ilocos Norte</b>			670,756	670,756
		<b>Ilocos Sur</b>		1,941	776,971	778,912
		<b>La Union</b>		661,008	131,497	792,505
		<b>Pangasinan</b>		3,164,768		3,164,768
	<b>Region II (Cagayan Valley)</b>	<b>Batanes</b>	1,054	6,719		7,773
		<b>Cagayan</b>			1,320,575	1,320,575
		<b>Isabela</b>		23,841	1,632,732	1,656,573
		<b>Nueva Vizcaya</b>		438,882	56,261	495,143
		<b>Quirino</b>		134,742	58,696	193,438
	<b>Region III (Central Luzon)</b>	<b>Aurora</b>	9,725	190,393	11,210	211,328
		<b>Bataan</b>	686,077			686,077
		<b>Bulacan</b>	2,899,094			2,899,094
		<b>Nueva Ecija</b>	511,380	1,708,656		2,220,036
		<b>Pampanga</b>	2,286,632			2,286,632
		<b>Tarlac</b>	312,173	1,050,183		1,362,356
		<b>Zambales</b>	665,044	105,126		770,170
	<b>Region IV (Southern Tagalog)</b>	<b>Marinduque</b>	264,836			264,836
		<b>Mindoro Occidental</b>	125,575			125,575
		<b>Mindoro Oriental</b>	510,355			510,355
	<b>Region IV-A (Calabarzon)</b>	<b>Batangas</b>	2,325,634			2,325,634
		<b>Cavite</b>	2,397,630			2,397,630
		<b>Laguna</b>	3,119,762			3,119,762
		<b>Quezon</b>	2,178,230			2,178,230
		<b>Rizal</b>	1,760,848			1,760,848
	<b>Region V (Bicol region)</b>	<b>Albay</b>	1,405,576			1,405,576
		<b>Camarines Norte</b>	602,852			602,852
		<b>Camarines Sur</b>	2,021,833			2,021,833
		<b>Catanduanes</b>	252,835			252,835
		<b>Masbate</b>	16,949			16,949
		<b>Sorsogon</b>	668,003			668,003
	<b>Region VIII (Eastern Visayas)</b>	<b>Eastern Samar</b>	98			98
		<b>Northern Samar</b>	344,685			344,685
	<b>PHILIPPINES - TOT</b>		38,610,702	8,157,770	5,824,448	52,592,920
	<b>TAIWAN</b>	<b>Taiwan Sheng</b>	<b>Name Unknown</b>			
			3,417,660			3,417,660
	<b>TAIWAN - TOT</b>		3,417,660			3,417,660
	<b>VIET NAM</b>	<b>Bac Giang</b>	<b>Bac Giang City</b>	111,451		111,451
			<b>Hiep Hoa</b>	238,805		238,805
			<b>Lang Giang</b>	210,957		210,957
			<b>Luc Nam</b>	217,455		217,455
			<b>Luc Ngan</b>	221,209		221,209
			<b>Son Dong</b>	75,309		75,309
			<b>Tan Yen</b>	173,099		173,099
			<b>Viet Yen</b>	169,181		169,181
			<b>Yen Dung</b>	186,702		186,702
			<b>Yen The</b>	106,003		106,003
		<b>Bac Kan</b>	<b>Ba Be</b>		50,792	50,792
			<b>Bac Kan Township</b>	4,974	35,804	40,778
			<b>Bach Thong</b>	4,078	29,147	33,225
			<b>Cho Don</b>	34,288	18,809	53,097
			<b>Cho Moi</b>	39,975	340	40,315
			<b>Na Ri</b>	6,714	34,601	41,315
			<b>Ngan Son</b>		30,476	30,476
			<b>Pac Nam</b>		32,419	32,419
		<b>Bac Ninh</b>	<b>Bac Ninh Township</b>	158,471		158,471
			<b>Gia Binh</b>	106,813		106,813
			<b>Luong Tai</b>	102,268		102,268
			<b>Que Vo</b>	142,881		142,881
			<b>Thuan Thanh</b>	154,006		154,006
			<b>Tien Du</b>	144,031		144,031
			<b>Tu Son</b>	148,124		148,124
			<b>Yen Phong</b>	145,426		145,426
		<b>Cao Bang</b>	<b>Bao Lac</b>		54,998	54,998
			<b>Bao Lam</b>		58,738	58,738
			<b>Cao Bang Township</b>		35,315	35,315
			<b>Ha Lang</b>		28,797	28,797
			<b>Ha Quang</b>		36,444	36,444
			<b>Hoa An</b>		94,861	94,861
			<b>Nguyen Binh</b>		43,060	43,060
			<b>Phuc Hoa</b>		24,824	24,824

	<b>Quang Uyen</b>		42,799		42,799	
	<b>Thach An</b>		33,469		33,469	
	<b>Thong Nong</b>		25,584		25,584	
	<b>Tra Linh</b>		23,445		23,445	
	<b>Trung Khanh</b>		53,624		53,624	
<b>Ha Giang</b>	<b>Bac Me</b>		52,399		52,399	
	<b>Bac Quang</b>	68,322	48,184		116,506	
	<b>Dong Van</b>	5,347	65,656		71,003	
	<b>Ha Giang Township</b>		49,477		49,477	
	<b>Hoang Su Phi</b>		64,643		64,643	
	<b>Meo Vac</b>		75,692		75,692	
	<b>Quan Ba</b>		49,110		49,110	
	<b>Quang Binh</b>	58,116	3,736		61,852	
	<b>Vi Xuyen</b>		106,944		106,944	
	<b>Xin Man</b>	6,370	58,242		64,612	
	<b>Yen Minh</b>		88,611		88,611	
	<b>Ha Noi City</b>	<b>Ba Dinh</b>	151,872			151,872
		<b>Cau Giay</b>	7,940			7,940
<b>Dong Anh</b>		376,371			376,371	
<b>Dong Da</b>						
<b>Gia Lam</b>		254,451			254,451	
<b>Hai Ba Trung</b>		292			292	
<b>Hoan Kiem</b>		84,813			84,813	
<b>Long Bien</b>		239,178			239,178	
<b>Soc Son</b>		306,621			306,621	
<b>Tay Ho</b>		102,459			102,459	
<b>Tu Lien</b>		116,858			116,858	
<b>Ha Tay</b>		<b>Ba Vi</b>	26,906			26,906
		<b>Dan Phuong</b>	66,865			66,865
	<b>Phuc Tho</b>	6,533			6,533	
<b>Hai Duong</b>	<b>Binh Giang</b>	82,793			82,793	
	<b>Cam Giang</b>	141,179			141,179	
	<b>Chi Linh</b>	172,490			172,490	
	<b>Gia Loc</b>	127,059			127,059	
	<b>Hai Duong City</b>	250,182			250,182	
	<b>Kim Thanh</b>	148,392			148,392	
	<b>Kinh Mon</b>	157,235			157,235	
	<b>Nam Sach</b>	121,437			121,437	
	<b>Ninh Giang</b>	40,275			40,275	
	<b>Thanh Ha</b>	170,685			170,685	
	<b>Thanh Mien</b>	3,250			3,250	
	<b>Tu Ky</b>	169,442			169,442	
	<b>Hai Phong City</b>	<b>An Hai</b>	348,041			348,041
<b>An Lao</b>		150,611			150,611	
<b>Bach Long Vi</b>						
<b>Cat Hai</b>		28,906			28,906	
<b>Do Son Township</b>		47,594			47,594	
<b>Hong Bang</b>		98,025			98,025	
<b>Kien An</b>		102,820			102,820	
<b>Kien Thuy</b>		187,365			187,365	
<b>Le Chan</b>		169,172			169,172	
<b>Ngo Quyen</b>		203,185			203,185	
<b>Thuy Nguyen Ward</b>		328,436			328,436	
<b>Tien Lang</b>		144,007			144,007	
<b>Vinh Bao</b>		40,215			40,215	
<b>Hung Yen</b>	<b>An Thi</b>	1,678			1,678	
	<b>My Hao</b>	98,813			98,813	
	<b>Van Giang</b>	3,703			3,703	
	<b>Van Lam</b>	117,742			117,742	
	<b>Yen My</b>	11,996			11,996	
<b>Lai Chau</b>	<b>Lai Chau township</b>	29,714			29,714	
	<b>Muong Te</b>	1,611			1,611	
	<b>Phong Tho</b>	72,665			72,665	
	<b>Sin Ho</b>	22,626			22,626	
	<b>Tam Duong</b>	51,495			51,495	
<b>Lang Son</b>	<b>Thanh Uyen</b>	57,899			57,899	
	<b>Bac Son</b>	72,407			72,407	
	<b>Binh Gia</b>	29,224	27,806		57,030	
	<b>Cao Loc</b>	12,240	63,148		75,388	
	<b>Chi Lang</b>	81,362			81,362	
	<b>Dinh Lap</b>	26,926	1,044		27,970	
	<b>Huu Lung</b>	123,924			123,924	
	<b>Lang Son City</b>	7,168	92,920		100,088	
	<b>Loc Binh</b>	63,191	23,801		86,992	

		Trang Dinh		64,216		64,216
		Van Lang		57,402		57,402
		Van Quan	42,376	17,104		59,480
	Lao Cai	Bac Ha	51,089	7,757		58,846
		Bao Thang	113,765			113,765
		Bao Yen	83,198			83,198
		Bat Xat	79,402			79,402
		Lao Cai City	109,497			109,497
		Muong Khuong	19,132	38,243		57,375
		Sa Pa	58,725			58,725
		Si Ma Cai	3,456	31,581		35,037
		Van Ban	82,762			82,762
		Cam Khe	70,039			70,039
		Doan Hung	117,913			117,913
	Phu Tho	Ha Hoa	118,304			118,304
		Lam Thao	105,871			105,871
		Phu Ninh	106,299			106,299
		Phu Tho Township	52,413			52,413
		Tam Nong	19,952			19,952
		Thanh Ba	113,423			113,423
		Viet Tri City	203,347			203,347
		Yen Lap	19,265			19,265
	Quang Ninh	Ba Che	20,540			20,540
		Binh Lieu	29,997	728		30,725
		Cam Pha Township	176,026			176,026
		Co To	5,397			5,397
		Dam Ha	36,551			36,551
		Dong Trieu	172,402			172,402
		Ha Long City	208,780			208,780
		Hai Ha	51,158	6,262		57,420
		Hoanh Bo	49,307			49,307
		Mong Cai Township	16,479	90,475		106,954
		Tien Yen	48,592			48,592
		Uong Bi Township	115,225			115,225
		Van Don	42,343			42,343
	Yen Hung	142,449			142,449	
	Thai Binh	Thai Thuy				
	Thai Nguyen	Dai Tu	177,549			177,549
		Dinh Hoa	96,769			96,769
		Dong Hy	126,018			126,018
		Pho Yen	152,898			152,898
		Phu Binh	141,710			141,710
		Phu Luong	113,592			113,592
		Song Cong Township	60,749			60,749
		Thai Nguyen City	291,339			291,339
	Tuyen Quang	Vo Nhai	70,613			70,613
		Chiem Hoa	131,192	13,655		144,847
		Ham Yen	121,593			121,593
		Na Hang	143	65,895		66,038
		Son Duong	185,132			185,132
		Tuyen Quang Township	87,234			87,234
	Vinh Phuc	Yen Son	183,032			183,032
		Binh Xuyen	125,889			125,889
		Lap Thach	232,523			232,523
		Me Linh	219,154			219,154
		Phuc Yen township	97,347			97,347
		Tam Dao	62,885			62,885
		Tam Duong	103,198			103,198
		Vinh Tuong	173,454			173,454
	Yen Bai	Vinh Yen Township	91,215			91,215
		Yen Lac	157,945			157,945
		Luc Yen	113,142			113,142
		Mu Cang Chai	6,915			6,915
		Tran Yen	94,116			94,116
		Van Chan	4,797			4,797
		Van Yen	128,349			128,349
	Yen Bai City	Yen Bai City	90,645			90,645
		Yen Binh	111,879			111,879
	VIET NAM - TOT		15,539,204	2,053,077		17,592,281
	All - TOT		136,603,440	81,455,117	29,656,382	247,714,939