



MANGKHUT-18 - Population Exposure Estimation based on bulletin n. 30

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 09:01 UTC
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admin0	admin1	admin2	population			Total	
			60km/h	90km/h	120km/h		
CHINA	Fujian Sheng	Longyan	479,098			479,098	
		Quanzhou	370,785			370,785	
		Xiamen	3,010,439			3,010,439	
		Zhangzhou	4,960,281			4,960,281	
		Chaozhou	2,408,195			2,408,195	
	Guangdong Sheng	Dongguan		8,328,593		8,328,593	
		Foshan		6,959,404		6,959,404	
		Guangzhou	510,033	12,780,254		13,290,287	
		Heyuan	2,830,996	173,800		3,004,796	
		Huizhou	574,354	4,195,304		4,769,658	
		Jiangmen		1,622,228	2,880,756	4,502,984	
		Jieyang	3,991,184	1,971,901		5,963,085	
		Maoming			5,938,026	5,938,026	
		Meizhou	4,313,120			4,313,120	
		Qingyuan	3,650,684	116,844		3,767,528	
		Shantou	3,382,242	2,195,841		5,578,083	
		Shanwei	37,940	2,998,148		3,036,088	
		Shaoguan	2,712,974			2,712,974	
		Shenzhen		10,399,780	22	10,399,802	
		Yangjiang			2,518,534	2,518,534	
		Yunfu		1,565,191	896,198	2,461,389	
		Zhanjiang		1,173,087	5,582,347	6,755,434	
		Zhaoqing	1,163,564	2,701,971		3,865,535	
		Zhongshan		2,825,609	493,728	3,319,337	
		Zhuhai			1,627,403	1,627,403	
		Guangxi Zhuangzu Zizhiqu	Baise	1,051,960	1,390,868	1,098,797	3,541,625
			Beihai		722	1,498,174	1,498,896
			Chongzuo	21,125	1,520,683	3,411,491	4,953,299
			Fangchenggang			841,232	841,232
			Guigang	29,014	3,599,848	607,306	4,236,168
	Guilin		2,024,004			2,024,004	
	Hechi		2,732,796	369,941		3,102,737	
	Hezhou		2,024,407	2,099		2,026,506	
	Laibin		1,660,690	1,400,060		3,060,750	
	Liuzhou		2,428,526			2,428,526	
	Nanning			312,135	3,812,361	4,124,496	
	Qinzhou				3,078,953	3,078,953	
	Wuzhou		455,639	2,365,905	137,750	2,959,294	
	Yulin			178,442	5,410,583	5,589,025	
	Guizhou Sheng		Qiannan Buyei and Miao	4,673			4,673
		Qianxinan Buyei and Miao	608,081			608,081	
	Hainan Sheng	Haikou		1,289,221		1,289,221	
		Hainan	5,069,304	1,371,016		6,440,320	
	Hunan Sheng	Sanya	8,425			8,425	
		Chenzhou	376,211			376,211	
		Yongzhou	603,996			603,996	
	Jiangxi Sheng	Ganzhou	1,078,706			1,078,706	
		Baoshan	2,579,048			2,579,048	
	Yunnan Sheng	Chuxiong Yi	386,284	3,193		389,477	
		Dali Bai	2,008,403			2,008,403	
		Dehong Dai and Jingpo	508,038			508,038	
		Honghe Hani and Yi	732,270	696,656	3,245,312	4,674,238	
		Kunming	1,483,081			1,483,081	
		Lincang	2,121,354			2,121,354	
		Nujiang Lisu	157,922			157,922	
		Pu'er	836,606	695,887	401,610	1,934,103	
		Qujing	1,032,208			1,032,208	
		Wenshan Zhuang and Miao	178,597	1,565,820	1,887,879	3,632,296	
		Xishuangbanna Dai	69,794			69,794	
		Yuxi	1,214,194	789,509	365,868	2,369,571	
CHINA - TOT				67,881,245	77,559,960	45,734,330	191,175,535
GUAM	---	---		16,242	140,853	157,095	
HONG KONG	---	---		4,116,056	2,760,184	6,876,240	
INDIA	Arunachal Pradesh	Changlang	7,322			7,322	
LAO PEOPLE'S DEMOCRATIC REPUBLIC	Houaphan	Sopbao	669			669	
		Xiengkhor	2,722			2,722	
	Phongsali	Boon Neua	368			368	
		May	9,881			9,881	
		Nhot Ou	31,987			31,987	
		Phongsaly	9,753			9,753	
		Samphanh	6,343			6,343	
LAO PEOPLE'S DEMOCRATIC REPUBLIC - TOT			61,723			61,723	
MYANMAR	Kachin	Myitkyina	497,054			497,054	

		Putao	23,033			23,033
		Sagaing	3,539			3,539
		Shan (N)	5,929			5,929
MYANMAR - TOT			529,555			529,555
NORTHERN MARIANA ISLANDS	---	---		44,130	4,479	48,609
PHILIPPINES	Cordillera Administrative region (CAR)	Abra			276,187	276,187
		Apayao			129,302	129,302
		Benguet	669,136		86,323	755,459
		Ifugao	3,804		235,375	239,179
		Kalinga			236,887	236,887
		Mountain Province			195,251	195,251
	National Capital region (NCR)	Metropolitan Manila	13,357,196			13,357,196
	Region I (Ilocos region)	Ilocos Norte			673,218	673,218
		Ilocos Sur		2,467	780,629	783,096
		La Union		725,191	90,269	815,460
		Pangasinan	3,165,473			3,165,473
	Region II (Cagayan Valley)	Batanes		7,789		7,789
		Cagayan			1,325,147	1,325,147
		Isabela			1,661,321	1,661,321
		Nueva Vizcaya	405,774		89,513	495,287
		Quirino	79,945		113,119	193,064
	Region III (Central Luzon)	Aurora		184,607		211,651
		Bataan	677,018			677,018
		Bulacan	2,573,639	337,710		2,911,349
		Nueva Ecija		2,224,871		2,224,871
		Pampanga	1,148,896	1,135,228		2,284,124
		Tarlac		1,359,107		1,359,107
		Zambales	517,427	264,169		781,596
	Region IV (Southern Tagalog)	Marinduque	269,612			269,612
		Mindoro Occidental	76,689			76,689
		Mindoro Oriental	536,738			536,738
		Romblon	78			78
	Region IV-A (Calabarzon)	Batangas	2,342,251			2,342,251
		Cavite	2,411,299			2,411,299
		Laguna	3,105,823			3,105,823
		Quezon	2,122,265	54,067		2,176,332
		Rizal	1,891,799			1,891,799
	Region V (Bicol region)	Albay	1,406,717			1,406,717
		Camarines Norte	606,351			606,351
		Camarines Sur	2,024,806			2,024,806
		Catanduanes	260,823			260,823
		Masbate	58,157			58,157
		Sorsogon	722,455			722,455
	Region VIII (Eastern Visayas)	Eastern Samar	75			75
		Northern Samar	381,510			381,510
PHILIPPINES - TOT			36,491,624	10,619,338	5,919,585	53,030,547
TAIWAN	Taiwan Sheng	Name Unknown	4,133,291	57,110		4,190,401
VIET NAM	Bac Giang	Bac Giang City		114,235		114,235
		Hiep Hoa	28,652	201,923		230,575
		Lang Giang		208,823		208,823
		Luc Nam		213,863		213,863
		Luc Ngan		225,231		225,231
		Son Dong		75,200		75,200
		Tan Yen		173,777		173,777
		Viet Yen	44,817	127,575		172,392
		Yen Dung	35,906	146,539		182,445
		Yen The		106,442		106,442
	Bac Kan	Ba Be			50,790	50,790
		Bac Kan Township			40,831	40,831
		Bach Thong			33,213	33,213
		Cho Don		5,522	47,579	53,101
		Cho Moi		29,339	10,916	40,255
		Na Ri			41,204	41,204
		Ngan Son			30,420	30,420
		Pac Nam			32,930	32,930
	Bac Ninh	Bac Ninh Township	158,078			158,078
		Gia Binh	104,940			104,940
		Luong Tai	100,762			100,762
		Que Vo	146,042	108		146,150
		Thuan Thanh	155,540			155,540
		Tien Du	144,012			144,012
		Tu Son	149,185			149,185
		Yen Phong	140,780	1,301		142,081
	Cao Bang	Bao Lac			54,478	54,478
		Bao Lam			58,950	58,950
		Cao Bang Township			35,840	35,840
		Ha Lang			28,683	28,683
		Ha Quang			36,814	36,814
		Hoa An			94,226	94,226
		Nguyen Binh			43,174	43,174
		Phuc Hoa			25,000	25,000
		Quang Uyen			42,868	42,868
		Thach An			33,499	33,499
		Thong Nong			25,590	25,590
		Tra Linh			23,510	23,510
		Trung Khanh			53,603	53,603
	Dien Bien	D.Bien	33,631			33,631
		D.Bien Dong	23,330			23,330
		Dien Bien Phu City	2,698			2,698

	Muong Lay	52,705			52,705	
	Muong Lay Township	12,800			12,800	
	Muong Nhe	53,642	191		53,833	
	Tua Chua	50,885	962		51,847	
	Tuan Giao	125,915			125,915	
Ha Giang	Bac Me			52,340	52,340	
	Bac Quang		14,355	101,492	115,847	
	Dong Van			71,603	71,603	
	Ha Giang Township			49,436	49,436	
	Hoang Su Phi			64,584	64,584	
	Meo Vac			76,279	76,279	
	Quan Ba			49,138	49,138	
	Quang Binh		4,653	57,344	61,997	
	Vi Xuyen			106,870	106,870	
	Xin Man			64,599	64,599	
	Yen Minh			87,398	87,398	
	Ha Nam	Binh Luc	162,557			162,557
Duy Tien		155,084			155,084	
Kim Bang		166,859			166,859	
Ly Nhan		183,634			183,634	
Phu Ly Township		35,508			35,508	
Ha Noi City	Thanh Lien	156,950			156,950	
	Ba Dinh	268,263			268,263	
	Cau Giay	272,489			272,489	
	Dong Anh	369,471			369,471	
	Dong Da	406,566			406,566	
	Gia Lam	266,590			266,590	
	Hai Ba Trung	303,993			303,993	
	Hoan Kiem	115,045			115,045	
	Hoang Mai	424,919			424,919	
	Long Bien	240,154			240,154	
	Soc Son	276,239		34,447	310,686	
	Tay Ho	110,399			110,399	
	Thanh Tri	230,128			230,128	
	Thanh Xuan	208,922			208,922	
	Tu Lien	429,461			429,461	
	Ba Vi	270,895			270,895	
	Ha Tay	Chuong My	321,713			321,713
		Dan Phuong	151,041			151,041
		Ha Dong Township	261,022			261,022
		Hoai Duc	221,765			221,765
My Duc		203,370			203,370	
Phu Xuyen		189,332			189,332	
Phuc Tho		172,377			172,377	
Quoc Oai		172,715			172,715	
Son Tay Township		146,894			146,894	
Thach That		190,947			190,947	
Thanh Oai		175,748			175,748	
Thuong Tin		241,700			241,700	
Ung Hoa		200,055			200,055	
Hai Duong		Binh Giang	112,762			112,762
		Cam Giang	141,544			141,544
		Chi Linh	125,447	47,016		172,463
	Gia Loc	148,895			148,895	
	Hai Duong City	251,922			251,922	
	Kim Thanh	150,277			150,277	
	Kinh Mon	157,329			157,329	
	Nam Sach	124,499			124,499	
	Ninh Giang	158,644			158,644	
	Thanh Ha	168,879			168,879	
	Thanh Mien	129,848			129,848	
	Tu Ky	167,488			167,488	
	Hai Phong City	An Hai	355,733			355,733
An Lao		149,876			149,876	
Bach Long Vi						
Cat Hai		29,668			29,668	
Do Son Township		47,582			47,582	
Hong Bang		102,656			102,656	
Kien An		100,101			100,101	
Kien Thuy		191,010			191,010	
Le Chan		174,669			174,669	
Ngo Quyen		185,784			185,784	
Thuy Nguyen Ward		328,967			328,967	
Tien Lang		152,716			152,716	
Vinh Bao		189,400			189,400	
Hoa Binh		Cao Phong	45,357			45,357
		Da Bac	58,241			58,241
	Hoa Binh Township	92,403			92,403	
	Kim Boi	157,359			157,359	
	Ky Son	34,920			34,920	
	Lac Son	147,139			147,139	
	Lac Thuy	53,536			53,536	
	Luong Son	85,284			85,284	
	Mai Chau	54,730			54,730	
	Tan Lac	86,439			86,439	
	Yen Thuy	64,308			64,308	
Hung Yen	An Thi	143,309			143,309	
	Hung Yen Township	47,159			47,159	
	Khoai Chau	198,589			198,589	

	Kim Dong	143,771			143,771	
	My Hao	105,006			105,006	
	Phu Cu	88,063			88,063	
	Tien Lu	144,316			144,316	
	Van Giang	116,490			116,490	
	Van Lam	117,408			117,408	
	Yen My	148,500			148,500	
Lai Chau	Lai Chau township		29,877		29,877	
	Muong Te	23,214	32,317		55,531	
	Phong Tho		66,006	6,718	72,724	
	Sin Ho	14,400	70,088		84,488	
	Tam Duong		51,275		51,275	
	Thanh Uyen	37,933	75,710		113,643	
Lang Son	Bac Son		49,111	23,222	72,333	
	Binh Gia			57,258	57,258	
	Cao Loc	2,404		73,165	75,569	
	Chi Lang	71,916		9,425	81,341	
	Dinh Lap	23,163		4,790	27,953	
	Huu Lung		124,031		124,031	
	Lang Son City			99,899	99,899	
	Loc Binh		22,686		64,390	
	Trang Dinh				64,184	
	Van Lang				54,947	
	Van Quan		14,212		47,757	
	Bac Ha		4,956		54,612	
	Bao Thang		94,361		18,936	
Bao Yen		60,868		22,193		
Bat Xat		18,009		60,912		
Lao Cai City		39,953		69,546		
Muong Khuong				57,398		
Sa Pa		58,841		58,841		
Si Ma Cai				34,772		
Van Ban			82,796	82,796		
Nam Dinh	Giao Thuy	200,185			200,185	
	Hai Hau	280,236			280,236	
	My Loc	78,248			78,248	
	Nam Dinh City	264,603			264,603	
	Nam Truc	211,863			211,863	
	Nghia Hung	191,868			191,868	
	Truc Ninh	190,740			190,740	
	Vu Ban	144,597			144,597	
	Xuan Truong	185,496			185,496	
	Y Yen	244,499			244,499	
	Ninh Binh	Gia Vien	135,747			135,747
Hoa Lu		150,273			150,273	
Kim Son		155,932			155,932	
Nho Quan		158,629			158,629	
Ninh Binh Township		39,856			39,856	
Tam Diep Township		59,574			59,574	
Yen Khanh		150,441			150,441	
Yen Mo		122,708			122,708	
Phu Tho		Cam Khe	137,465			137,465
		Doan Hung	2,447	108,380		110,827
	Ha Hoa	73,638		43,174	116,812	
	Lam Thao	123,047			123,047	
	Phu Ninh	86,850		27,999	114,849	
	Phu Tho Township	51,892			51,892	
	Tam Nong	84,858			84,858	
	Thanh Ba	113,086		9,237	122,323	
	Thanh Son	219,207			219,207	
	Thanh Thuy	81,628			81,628	
	Viet Tri City	204,627			204,627	
	Yen Lap	91,096			91,096	
	Ba Che			20,601	20,601	
	Binh Lieu			20,522	30,677	
Quang Ninh	Cam Pha Township		175,045	10,155	175,045	
	Co To		5,372		5,372	
	Dam Ha		36,493		36,493	
	Dong Trieu	70,400		101,267	171,667	
	Ha Long City	300		208,319	208,619	
	Hai Ha			36,617	20,796	
	Hoanh Bo			49,469	49,469	
	Mong Cai Township			12,876	105,526	
	Tien Yen			48,602	48,602	
	Uong Bi Township	1,350		114,827	116,177	
	Van Don	4		42,373	42,377	
	Yen Hung	114,624		28,354	142,978	
	Son La	Bac Yen	62,223			62,223
		Mai Son	146,294			146,294
		Moc Chau	165,348			165,348
Muong La		99,328			99,328	
Phu Yen		117,196			117,196	
Quynh Nhai		34,875			34,875	
Son La Township		106,514			106,514	
Song Ma		41,275			41,275	
Thuan Chau		191,649			191,649	
Yen Chau		75,158			75,158	
Thai Binh	Dong Hung	251,652			251,652	
	Hung Ha	282,945			282,945	

	Kien Xuong	237,714			237,714	
	Quynh Phu	251,557			251,557	
	Thai Binh City	204,704			204,704	
	Thai Thuy	266,513			266,513	
	Tien Hai	225,240			225,240	
	Vu Thu	238,067			238,067	
Thai Nguyen	Dai Tu		176,001		176,001	
	Dinh Hoa		96,541	93	96,634	
	Dong Hy		129,987		129,987	
	Pho Yen		152,551		152,551	
	Phu Binh		148,864		148,864	
	Phu Luong		115,032		115,032	
	Song Cong Township		60,772		60,772	
	Thai Nguyen City		287,274		287,274	
		Vo Nhai		70,348	218	70,566
Thanh Hoa	Ba Thuoc	12,528			12,528	
	Bim Son Township	325			325	
	Cam Thuy	35			35	
	Ha Trung	281			281	
	Nga Son	20,896			20,896	
	Quan Hoa	13,750			13,750	
Tuyen Quang	Thach Thanh	30,583			30,583	
	Chiem Hoa		43,596	101,713	145,309	
	Ham Yen		117,030	5,303	122,333	
	Na Hang			66,020	66,020	
	Son Duong		185,305		185,305	
	Tuyen Quang Township		88,597		88,597	
Vinh Phuc	Yen Son		184,465		184,465	
	Binh Xuyen	126,052	554		126,606	
	Lap Thach	170,427	62,032		232,459	
	Me Linh	219,216			219,216	
	Phuc Yen township	94,390	2,491		96,881	
	Tam Dao	6,291	58,938		65,229	
	Tam Duong	87,855	12,594		100,449	
	Vinh Tuong	217,347			217,347	
	Vinh Yen Township		91,534		91,534	
	Yen Lac	161,361			161,361	
Yen Bai	Luc Yen		113,206		113,206	
	Mu Cang Chai	48,184	5,761		53,945	
	Nghia Lo Township	19,231			19,231	
	Tram Tau	29,514			29,514	
	Tran Yen	6,257	77,580		83,837	
	Van Chan	168,561	38		168,599	
	Van Yen	182	128,181		128,363	
	Yen Bai City		102,922		102,922	
		Yen Binh		111,713		111,713
VIET NAM - TOT		24,265,761	6,345,982	2,746,273	33,358,016	
All - TOT		133,370,521	98,758,818	57,305,704	289,435,043	